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الجامعة الأردنيـــــة
كلية الدراسات العليا

التاريـــخ: / /

نموذج رقم (١٦)
اقرار والتزام بالمعايير الأخلاقية والأمانة العلمية
وقوانين الجامعة الأردنية وأنظمتها وتعليماتها لطلبة
الدكتوراه

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عنوان الاطروحة: The effectiveness of an Educational program on Jordanian Nurses' attitudes towards Caring for Dying patients

اعلن بأنني قد التزمت بقوانين الجامعة الأردنية وأنظمتها وتعليماتها وقراراتها السارية المفعول المتعلقة باعداد اطروحات الدكتوراه عندما قمت شخصيا" باعداد اطروحتي وذلك بما ينسجم مع الأمانة العلمية وكافة المعايير الأخلاقية المتعارف عليها في كتابة الأطروحات العلمية. كما أنني أعلن بأن اطروحتي هذه غير منقولة او مستلة من أطاريح أو كتب أو أبحاث أو أي منشورات علمية تم نشرها أو تخزينها في أي وسيلة اعلامية، وتأسيسا" على ما تقدم فانني أتحمل المسؤولية بأنواعها كافة فيما لو تبين غير ذلك بما فيه حق مجلس العمداء في الجامعة الأردنية بالغاء قرار منحي الدرجة العلمية التي حصلت عليها وسحب شهادة التخرج مني بعد صدورها دون أن يكون لي أي حق في التظلم أو الاعتراض أو الطعن بأي صورة كانت في القرار الصادر عن مجلس العمداء بهذا الصدد.

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THE EFFECTIVENESS OF AN EDUCATIONAL PROGRAM ON JORDANIAN NURSES' ATTITUDES TOWARDS CARING FOR DYING PATIENTS

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This Dissertation was Submitted in Partial Fulfillment of the Requirements for the Doctor of Philosophy Degree in Nursing

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COMMITTEE DECISION

This Thesis/Dissertation (The Effectiveness of an Educational Program on Jordanian Nurses' Attitudes Towards Caring for Dying Patients) was Successfully Defended and Approved on 17/4/2011

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Dedication

I dedicate my dissertation work to my mother Sara and my father Abdallah. I am deeply and forever grateful to my parents for their love, support and encouragement throughout my entire life. I am greatly indebted to my father for his care and love, and for instilling the importance of hard work and higher education. Although he is no longer with us, he is forever remembered. I have no suitable word that can fully describe my eternal love to him.

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In closing, I thank God for success and completing this work.

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List of Abbreviations

Abbreviation	The Meaning of Abbreviation
ELNEC	End of Life Nursing Education Consortium
EOL	End of life
FATCOD	Frommelt Attitudes Toward Care Of The Dying Scale
IRB	Institutional Review Board
p	Significant value
ANOVA	Analysis of variance
SD	Standard deviation
SPSS	The Statistical Package for Social Science
RMS	The Royal Medical Services
TOT	Training of Trainers

List of Appendices

THE EFFECTIVENESS OF AN EDUCATIONAL PROGRAM ON JORDANIAN NURSES' ATTITUDES TOWARDS CARING FOR DYING PATIENTS

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ABSTRACT

BACKGROUND: Cancer is the second leading cause of death in Jordan. Most Jordanian cancer patients are diagnosed at a late stage of the cancer disease (Ministry of Health, 2005); thus nurses are expected to care for many patients at their end-of-life stage. Care of the dying provokes many undesired emotions and attitudes that reflect on the quality of patients' care. There are many factors that can affect nurses' attitudes towards caring for dying patients, such as nurses' demographics (such as age, gender and educational level) and attending educational programs on end-of-life care.

SIGNIFICANCE: There are few studies about nurses' attitudes towards caring for dying patients conducted in the Arab countries, and no similar studies were conducted in Jordan. This research adds to the body knowledge of Jordanian nurses in the area of caring for dying patients, which might reflect on the quality care provided for dying patients. Also, this study will help nursing educators and managers to plan and conduct appropriate educational programs for nurses providing care for dying patients.

PURPOSE: This study aims to assess nurses' attitudes towards caring for dying patients and to evaluate the influence of an educational program on nurses' attitudes towards caring for dying patients. In addition, this study examines the influence of nurses' characteristics on their attitudes towards caring for dying patients.

Methods: An experimental approach using pretest post-test control group design was used. A total of 145 nurses were recruited to participate in the study, using a random sampling method. Attitudes towards caring for dying patients were measured using the Frommelt Attitudes Toward Care of the Dying Scale (FATCOD). Repeated measures, T-test and ANOVA were used to identify the effect of an educational program and the effect of a set of independent variables (age, gender, educational level, ward, death education and experience, nursing experience, caring for dying patient, and an educational program) on nurses' attitudes towards caring for dying patients.

RESULTS: The study results showed that an educational program can improve nurses' attitudes towards caring for dying patients. The mean score of attitudes for the intervention group improved significantly ($p < .001$) from (117.1) at pre-test to (125.6) at post-test. But the mean score of attitudes for control group did not improve significantly ($p = .541$). The mean score of attitudes for the control group increased from (115.4) at pre-test to (119.6) at post-test. This study also showed that age, wards, recent death experience, general and oncology nursing experience and end of life educational program were the only variables associated significantly with nurses' attitudes towards caring for dying patients.

CONCLUSION: The study results indicated that there is a need for conducting these programs for all nurses caring for dying patients to keep their attitudes towards caring for dying patients highly positive. Understanding the effect of an educational program and the factors that are associated with nurses' attitudes towards caring for dying patients can guide nurses in improving the care provided for dying patients. Also, it guides hospitals and health

care agencies to develop educational programs with specific content and time (e.g. two days in this study) that can improve nurses' attitudes towards caring for dying patients.

Chapter One

Introduction

Jordan is an Asian country with a population of about 6 million (Department of Statistics, Jordan, 2009). Patients diagnosed with cancer are treated in government hospitals, university hospitals, the Royal Medical Services (RMS), and King Hussein Cancer Center (KHCC). Moreover, the majority of cancer patients are treated at KHCC (Ministry of Health, 2007), since this center is specialized in treating cancer patients, in particular; furthermore, this center has qualified health professionals in oncology who can provide quality of oncology care (Abdel-Rahman, Hussein, Rihani, Hlalah, El Taani, Sharma, Nserat … Sarhan, 2008). In this center, registered nurses provide oncology care for all patients who are admitted to the center or those who receive care in the out-patient clinics.

End of life is defined as a phase of life when a person is living with an illness that will worsen and eventually cause death (Mallory, 2003). The concept is used interchangeably with the concept “Dying” which is defined as a person who is expected to die within a matter of months, weeks or days (Ki, 2003). Sometimes, the concept “palliative” is used to mean end of life care. But according to WHO (2002), palliative care was defined as "an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual". According to this definition, palliative care start at the point of diagnosis of life-threatening illness while end of life care start at the end stage of the disease.

Jordanian universities educate nursing students about end-of-life (EOL) care. It is part of their clinical role to provide holistic care for terminal patients who have multiple unmet needs. There is no specialized end-of-life course (topics related to dying patients) in most universities. While some universities cover this topic in a separate course; others integrate

this knowledge in several nursing courses. Recently, continuing education programs in some Jordanian hospitals started to pay attention to issues related to palliative and end-of-life care.

Oncology nurses play a principal role in the care of individuals and their families in all stages of cancer, from diagnosis to death. Moreover, patients in varying phases of the illness have different needs. Caring for dying patient presents a challenge to nurses who need to continuously adjust to the needs of their patients and their families. Of all health professionals, nurses are in immediate position to provide care, comfort, and counseling for patients and families at the end-of-life stage (Walsh and Hogan, 2003). Compared with other health care providers, nurses spend most of their time with patients and their families at the end stages of life (Dickinson, Clark and Sque, 2008).

Interacting with the dying patients and providing end-of-life care evokes some undesirable emotions and attitudes for nurses and caregivers, such as anxiety, stress, sadness, and fear. These emotions and attitudes towards care for the dying can be reflected positively or negatively in their abilities to provide good quality care. Several studies in USA and Western countries (Barrere, Durkin, & LaCoursier, 2008; Dickinson et al., 2008; Lange, Thom, & Kline, 2008; Mallory, 2003; Wessel and Rutledge, 2005) have shown that adequate EOL preparation for nursing students and practicing nurses, like giving certain educational programs, could improve their attitudes towards caring for dying patients and help improve control over their emotions.

Most of the studies investigated nurses' attitudes towards caring for dying patients were conducted in Western countries that are of a different culture from Arab countries. Since these attitudes originate from nurses' culture and religion, studying Arab nurses' attitudes and applying the standardized educational programs in their culture might reveal different results.

Statement of the problem

Death and dying are universal human experiences. But there are different cultural patterns and interpretations of this issue (Pahor & Rasmussen, 2009). This indicates that cultural variations should be considered in teaching end of life care.

The issue of caring for terminally ill patients and the associated attitudes has been given attention internationally in different Western countries and in some Islamic and Arabic countries. End of life care is discussed in many nursing studies and integrated in most nursing curricula. The concept of care is not universal. It varies according to culture. For this reason, it must be taken into consideration when discussing health care in general and palliative care specifically (Pahor & Rasmussen, 2009).

Providing end-of-life care to patients and their families is the most stressful facet of nursing (Hopkinson, Hallett, & Luker, 2005); perhaps, no subject in nursing arouses such emotional responses as the care of terminally ill patients (Tan, Low, Yap, Lee, Pang & Wu, 2006). The nature of the nursing profession necessitates nurses to spend a lot of time caring for dying patients and their families. Thus nurses encounter many unpleasant and distressing feelings and experiences that may impede their abilities to provide adequate care for dying patients.

As knowledge about the dying process develops, end-of-life care becomes an increasingly complex skill (Agrawal & Danis, 2002). Research shows that many nurses and nursing students have difficulty dealing with death (Mallory, 2003). It requires the maintenance of emotional balance together with technical skills (De Araújo, Da Silvaand, & Francisco, 2004).

Nurses, working in cancer centers, deal frequently with the phenomenon of death and dying during daily care of patients. The psychological burden of death can affect nurses'

approach to providing care for dying patients (Macpherson, 2008). Moreover, their attitudes towards caring for dying patients affect the satisfaction of patients and their family, and ways of nurses' communication and interaction with patient, which may reflect on the quality of care provided (Kelly, Ersek, Virani, Malloy, & Ferrell, 2008; Sullivan, Lakoma, Billings, Peters, & Block, 2005).

A close nurse–patient relationship, such as that which develops during caring for dying patients, contributes to the nurse's experience of loss and grief, related to patient deaths. Multiple recurrent patient deaths can result in an overload of loss and grief for oncology nurses (Macpherson, 2008) and cause them to withdraw physically from the distressful conditions surrounding the deaths of their patients (Papadatou and Bellali, 2002).

Most nurses lack knowledge and skills to provide effective end-of-life care; this may be related to their inability to deal with negative personal thoughts and anxiety concerning dying (Tan, et al., 2006) and inadequate preparation to deal with dying issues, since nursing curricula lacks an effective and efficient approach to educate students about EOL care (Beckstrand and Kirchhoff, 2005; Tan et al, 2006).

Nurses' demographic and experiential characteristics and previous educational background can shape their attitudes towards caring for dying patients (Papadatou and Bellali, 2002).Many studies were conducted in non-Arab countries to examine the effect of educational programs and nurses' characteristics on their attitudes towards caring for dying patients. Some of those studies found strong relationships between previous death education and nurses' attitudes towards caring for dying patients and strong relationship between nurses' demographics and their attitudes (Tan, et al, 2006; Mallory, 2003; Dickinson et al., 2008; Lange et al., 2008; Wessel and Rutledge, 2005; Barrere et al., 2008). There was a lack of agreement about the effectiveness and duration of educational programs. Moreover, the

studies had various contradicting results regarding the effect of nurses' characteristics on attitudes towards caring for dying patients.

Previous studies found a great impact of educational programs on nurses' satisfaction and in improving quality of care provided (Sullivan et al., 2005). In terms of cancer care, it was found that nurses lack knowledge and skills of understanding and caring for terminally-ill patients (Birkholz, Clements, Cox, & Gaume, 2004). Thus, nurses need specialized knowledge that meets their needs. Several standardized educational programs provide nurses with a strong background in palliative care and coping skills and exposing them to various EOL scenarios they might encounter in providing care to oncology patients (Lange et al., 2008).

Nursing curricula in Jordan have some courses related to death and dying and that emphasize issues related to death and dying. However, the study of nurses' attitudes towards caring for dying patients in Jordan was very important for several reasons: first, most patients in Jordan seek medical treatment for cancer in its late stage. As a result, 75% of the cancer patients are incurable when diagnosed (Stjernswärd, Ferris, Khleif, Jamous, Treish, Milhem, … Alwan, 2007). Therefore, it is expected to have a large number of terminally ill patients treated in cancer centers. Second, the study of nurses' attitudes towards caring for dying patients is necessary; since such an issue has scarcely been discussed from an Arabic culture. Moreover, no study was found examining the effect of educational programs on Jordanian nurses' attitudes towards caring for dying patients. Third, conducting such studies will provide nurse educators and managers with information about Jordanian nurses' attitudes and factors that might play a role in nurses' attitudes, so that specific educational programs can be established to improve their attitudes. Fourth, improving nurses' attitudes towards caring for dying patients will improve the quality of nursing care and satisfaction of patients and families with the nursing care provided. Finally, improving nurses' attitudes will achieve the

goal of end of life care which is reducing patient and family suffering and providing comfort (Twycross, 2002).

Since the Arab studies on nurses' attitudes towards caring for dying patients were scarce, there is a need for conducting such studies on Jordanian nurses and examined the effect of an educational program on their attitudes. This will help nursing managers and educators to use the results of this study and the educational program as a part of the continuing education of health institutions in Jordan.

This study will answer the study questions: "what is the effect of implementing an EOL educational program on nurses' attitudes towards caring for dying patients?" and the question "is there a relationship between nurses' demographics such as age, gender and professional degree, and their attitudes towards caring for dying patients?"

Significance of the study

The current study assessed nurses' attitudes towards caring for dying patients and examined effect of an educational program and nurses’ demographics on their attitudes. The study of nurses’ attitude is very important due to the increase in the number of terminal cancer patients and lack of adequate end of life education among nurses in Jordan.

Cancer is considered the second leading cause of death and the major cause of morbidity among Jordanian population in 2007. The analysis of the mortality data showed that the first killer in Jordan is cardiovascular diseases representing (34.2%) followed by neoplasm's (14 %) (Ministry of Health, 2005). The number of new cancer cases in Jordan is constantly increasing, from 500 new cases in 1986 to 3302 in 1996 (National Cancer Institute, 2007) to 4606 new cases in 2008 (Ministry of Health, 2008). Moreover, there is an increase in Jordanian population that might increase the number of cases. Therefore, Jordanian nurses will be exposed to care for more patients at end-of-life stage.

Given the advance of technology and methods of treatment of cancer patients, deficiency of courses in nursing curricula regarding some EOL care, and increasing demand for palliative care; oncology nurses need to be well prepared to deal with different issues regarding end of life care, including care for patients and their families. According to Beckstrand and Kirchhoff (cited in Easom, Galatas, & Warda, 2006), “Serious deficiencies in end-of-life care is a world-wide problem due in part to a lack of nursing education on end-of-life care" (Easom, et al., 2006).

Most studies of nurses' attitudes towards caring for dying patients have been conducted in Western countries (Barnard, Hollingum, & Hartfiel, 2006). There were very few studies that examined nurses' attitudes towards caring for dying patients in Arab (Ali & Ayoub, 2010) and Islamic countries (Iranmanesh, Savenstedt, & Abbaszadeh, 2009). The researcher of the current study found no studies that examined Jordanian nurses’ attitude towards caring for dying patients. Also, no study was found that examined the effect of nurses' attitude on their caring for terminal cancer patients. It is noteworthy that the studies conducted on Arab participants, regarding care of dying patients, are scarce. At the same time, the majority of these studies that have been carried out on nursing students do not include clinical nurses (Abdel-Khalek and Al-Kandari, 2007). Understanding this phenomenon in Jordan can not be based on Western studies, without considering differences in culture and population characteristics among Western and Jordanian people. Studies have found significant differences among the various ethnic groups in their attitudes towards dying persons (Dickinson et al., 2008). So, there is a need to study Jordanian nurses' attitudes towards caring for dying patients for the purpose of assessing their attitudes. In addition to using certain educational programs that can improve attitudes of nurses who had lower attitude scores. The effectiveness of an EOL educational program will help cancer institutions apply such program to their oncology nurses.

Clinically, positive attitudes towards caring for dying patients enhance nurses' coping and therapeutic communication behaviors, along with alleviating their anxiety. This reflects on the ability of nurses to provide spiritual support, facilitate patients' grieving and engage in open and frank communication about death (Mitchell, Sakraida, Dysart-Gale and Gadnner, 2006).

This study will add to body of the nursing knowledge and fill the gap in Jordanian literature regarding Jordanian nurses' attitudes towards caring for dying patients. In addition, it provides a starting point for further studies all over Jordanian cancer institutions regarding factors affecting nurses' attitudes. Results from the current study can be incorporated into Jordanian nursing curricula, practice, and administration. It will add to body of nursing knowledge and suggest some recommendations for the addition of certain educational courses to nursing curricula, along with experiences with terminal patients in hospice and palliative wards. Nursing managers can benefit from the results of this study in implementing continuing educational programs that can enhance positive attitudes of nurses towards caring for dying cancer patients.

Purposes of the study

The aims of this study were to:

1. Evaluate the effectiveness of an educational program about End of-Life Care on Jordanian nurses' attitudes towards caring for dying patients.
2. Examine the effect of nurses' demographics on their attitudes towards caring for dying patients.

Theoretical Framework

The theoretical framework for this study based on Transformative Learning Theory. Transformative Learning Theory involves the transformation of an individual's beliefs, ideas, and views. Change occurs as learners incorporate their new learning into their belief system and transform or reject their old beliefs (Mallory, 2003; Barrere et al., 2008). New beliefs, values, and assumptions are considered and tested as learners become self-aware and allow change to occur (Barrere et al., 2008). As the educator and learner explore issues for EOL care, new information is learned, and after reflection, previously held beliefs may be challenged or changed (Mallory, 2003).

The educational components such as role play, group process, and patient interaction facilitate transformative learning (Mallory, 2003). Positive attitudes towards EOL care are fostered when caring concepts learned in class are reflected upon and applied in the clinical area (Allchin, 2006; Mallory & Allen, 2006; Barrere et al., 2008). This learning has been found to changed attitudes towards caring for dying from negative to positive (Mallory, 2003).

According to Transformative Learning Theory (Mezirow, 1991), nurses change their attitudes after being exposed to learning sessions. The change occurs in several steps. The nurses experience a disorienting dilemma and experience fear, anger, guilt, or shame when caring for the dying. As a result, they critically assess assumptions about the world and realize that others have gone through what they are feeling. Through the learning process, nurses revise their old belief system and explore new ones; and plan a course of action; and gain the knowledge and skills for implementing new plans. Finally, nurses try what they learn in the clinical situation and become competent and confident with the new change.

In this study nurses were exposed to an educational program about end of life care. The educational program enabled them to bring to memory their feelings and experiences

they had when caring for dying patients such as fear, anger and negative attitudes. Moreover, nurses' demographics such as gender, age and death experience played a role in increasing or decreasing these feelings and experiences. As a result, they assessed their assumptions about caring for dying patients. Through attending the educational program provided to them and participating actively in the learning process, nurses changed or improved their belief system and gained the knowledge and skills for implementing new attitudes in the clinical situations. The changes in nurses' attitudes towards caring for dying patient supports the hypotheses of the study regarding the effect of education and nurses' demographics on their attitudes towards caring for dying patients.

Hypotheses

Null: There is no significant difference in nurses' attitudes towards caring for dying patients between oncology nurses who receive EOL educational program and those who do not receive the EOL educational program.

Null: There are no significant differences among nurses' attitudes towards caring for dying patients, based on their demographics.

Definition of Concepts

In this section, the variables of study will be defined conceptually and operationally before conducting the study.

Attitudes towards caring for dying patients. Conceptually, it is defined as a set of salient behavioral beliefs that cause the nurse to react and behave in a certain way regarding the various aspects of the dying patient (White, Wise, Young, & Hyde, 2009). Operationally, for the purpose of this study, nurses' attitudes towards care of the dying patient will be measured using the Frommelt Attitudes Toward Care of the Dying (FATCOD) Scale (Frommelt, 1991).

An educational program. Conceptually, it is defined as the use of theoretical and clinical education for the purpose of preparing nurses to care about dying patients and their families (Mallory, 2003). Operationally, it is the educational program with specific contents that are based on standardized EOL modules. In this study, the End-of-Life Nursing Education Consortium (ELNEC) was used (Appendix 1) (Wu & Volker, 2009). It was developed by the American Association of Colleges of Nursing and the City of Hope medical center (Kelly et al., 2008).

Chapter Two

Literature Review

This chapter includes studies relating to nurses' attitudes towards caring for dying patients, and studies that discussed the effect of demographic and educational program on those attitudes. The review included studies conducted in Arab and non-Arab countries to shed the light on the attitudes aspects from different cultural views.

Death and dying are inevitable in human beings and, hence, have been studied in many disciplines, including nursing (Kim and Lee, 2003). Helping dying patients and their family members to cope is an integral part of professional nursing practice (Ki, 2003) and continues to remain so, as the profession has evolved (Cooper and Barnett, 2005). Nurses spend more time with dying patients than do other health care practitioners (Kim and Lee, 2003). The relationships between nurses and dying persons are extremely valuable- even more valuable than other clinical interventions (Liu, Mok, & Wong, 2006).

The nature and quality of providing nursing care to patients with cancer depends on a number of factors, including personal characteristics of nurses, their knowledge, their skills, resources, support, and clear and relevant policies. One of the most important personal characteristics, which can affect nursing care in any setting, is the attitude of nurses towards caring of patients (McCaughan and Parahoo, 2000).

Religious and cultural aspects of end of life care were always considered in the literature review. Dying patients are considered a vulnerable group that deserves specialized and sensitive care that addresses their physical, psychosocial, and spiritual needs. This comprehensive approach to care at the end of life requires better understanding of the religious background of patients. Improvement in the awareness of health care professionals about Islamic teachings is likely to promote sensitive caring for their Muslim patients (Al-Shahri & Al-Khenaizan, 2005).

Religion may affect the attitudes toward death and dying. For example, the hereafter is one of the firmly rooted origins in Islam (Abdel-Khalek and Al-Kandari, 2007). For Muslims, life is viewed as a time of preparation for the hereafter. They view death as the beginning of a different form of life called Al-Barzakh (the interval between death and resurrection) (Al-Shahri & Al-Khenaizan, 2005). In times of illness Muslims find strength from prayer and meditation, and may find spiritual healing in reciting the *Qur'an*, particularly if they perceive their illness as a test or punishment from God (Taheri, 2008).

Families usually try gently to prompt a dying patient with the Shahadah (bearing witness that there is no true God but Allah and Muhammad is verily His Servant and His Messenger) as a final statement of faith (Al-Shahri & Al-Khenaizan, 2005). When death approaches, the patient and family environment usually become charged with emotions as they seek forgiveness from one another (Al-Shahri & Al-Khenaizan, 2005).

Muslims believe in divine predestination and attribute the occurrence of pleasure and suffering to the will of Allah. They generally perceive suffering as a way of atonement for one's sins This interpretation helps patients and families to cope with serious and life-limiting illnesses. However, it does not belittle the fact that every effort should be made to relieve suffering. Islamic teachings consider the relief of suffering of man and animal to be highly virtuous (Al-Shahri & Al-Khenaizan, 2005).

Muslims believe that the longevity of every person is only known by Allah who predetermined the exact timing of death. It is, however, recommended to continually keep the patient and family informed about progression of the patient's condition and whether death is becoming imminent. Families often appreciate being aware of this information, as they may want to be around the patient during this period and be prepared for funeral rites (Al-Shahri & Al-Khenaizan, 2005).

Death is accepted as part of Divine plan. Islam encourages people to talk about death and to care for ill and dying persons and consider it a virtue. Muslims know that the fate of person is sealed from the time of birth (Gatrad & Sheikh, 2002).

Nurses' attitudes towards caring for dying patients

The concept of "attitude" is vaguely defined in the literature (Altmann, 2008). It has cognitive, affective and behavioral components (Jakubowska-Winecka, Rowinski, Włodarczyk, & Wójtowicz, 2006; Altmann, 2008) and intentions involving the future (Jakubowska-Winecka, et al., 2006). These attitudinal components are interrelated, combining into an individual reaction system called an "attitude system" (Jakubowska-Winecka, et al., 2006).

There are other several definitions for this concept. For the purpose of this study, the following definition of attitude was chosen: "Behavior based on conscious or unconscious mental views, developed through cumulative experience" (Altmann, 2008). A person's attitude is determined by a set of salient behavioral beliefs; beliefs that are a result of a person's perception that performing the behavior will produce given outcomes (i.e., either advantageous or disadvantageous), and how negatively or positively these outcomes are evaluated (Ajzen, 2009). According to McCaughan and Parahoo (2000), the attitude one hold towards a topic or issue will influence the behavior towards it.

Caring for the dying patient and his/her family is often described by nurses as the most painful and stressful element of the nursing role (Beckstrand and Kirchhoff, 2005).The care of a dying human being is emotionally taxing, not only for the family, but also for the nurses caring for the individual. This stress may be due in part to a nurse's lack of confidence providing appropriate care to the dying (Brajtman et al., 2007).

Speaking about dying to those who are near death is challenging for even the most talented and experienced nurse (Gauthier, 2008). Gauthier stated that nurses generally have a high level of apprehension in caring for dying patients. Working with dying patients is a unique, profound experience, which often stirs very strong emotions in the nursing staff (Ki, 2003), such as sorrow (Wallerstedt and Andershed, 2007; Ungureanu and Sandberg, 2008; Weigel, Parker, Fanning, Reyna, & Gasbarra,, 2007), depression, and sometimes anger (Ungureanu and Sandberg, 2008; Weigel et al., 2007) and guilt after the death of a patient (LeSergenta, & Haneyb, 2005; Ungureanu and Sandberg, 2008). Some cry, and most think intensively about the patient and his or her family members; or, they may avoid care by retreating to practical tasks, or even de-humanizing the dying by giving care to the body rather than to a whole human being (Ungureanu and Sandberg, 2008). Emotions such as sadness (Brajtman, Fothergill-Bourbonnais, Casey, Alain, & Fiset, 2007; Weigel et al., 2007), helplessness, and anxiety are often felt by nurses who care for patients at the end-of-life (Weigel et al., 2007). Also, feelings of frustration, feelings of loss (Brajtman et al., 2007; Wallerstedt and Andershed, 2007), and feelings of inadequacy could arise when a patient dies, as well as the feeling of no longer having the strength to cope. The unplanned end of a relationship with a patient could be experienced as an extra burden (Wallerstedt and Andershed, 2007). As previously noted, nurses need to recognize and to confront their own reactions to death, before they can help their patients (Dickinson et al., 2008).

Personal and professional factors and attitudes towards end-of-life care

Previous studies have investigated the relationship between nurses' attitude towards end-of-life care and certain personal and professional factors. These factors include age, sex, past experience with death and dying, present experience with death and dying, attending certain education regarding end-of-life care, and years of clinical experience (Barrere et al.,

2008; Dunn, Otten, & Stephens, 2005; Dickinson et al., 2008; Lange et al. , 2008; Mallory, 2003; Weigel et al., 2007).

The literature revealed that years working as registered nurse (RN) and years employed at a cancer center emerged as the strongest indicators of exhibiting a positive attitude towards caring for dying patients (Lange et al. , 2008). Lange et al. conducted a descriptive study on a convenience sample which consisted of 355 registered nurses. The study was conducted in a 432-bed comprehensive cancer center in New York. The nurses' attitudes towards caring for dying patients were measured by the FATCOD scale. The results revealed that nurses working 11 years or more had significantly higher attitudes scores than nurses working 0–1 years and 2–4 years. Similarly, Dunn et al. (2005) found that nurses having 17–21 years of experience reported more favorable attitudes towards caring for dying patients than nurses with less experience. In contrast, other studies found that more years of experience equated to a more negative attitude (Weigel et al., 2007).

Caring for the dying is one of the variables that can influence nurses' attitudes towards caring for dying patients. Barrere et al. (2008) conducted a study to evaluate the influence of ELNEC content integrated into baccalaureate nursing curriculum on students’ attitudes towards caring for dying patients. The study used a quasi-experimental, longitudinal repeated measures. The sample consisted of 73 baccalaureate nursing students. The results showed that nursing experience with dying patients had a significant influence on attitude change of students. Similarly, It was found that nurses, who cared for a greater percentage of dying patients, had more positive attitudes towards caring for dying patients than nurses who cared for a lesser percentage of terminally ill patients (Dunn et al., 2005; Dickinson et al., 2008; Lange et al, 2008; Wowchuk, McClement, & Jr, 2007), and they feel more comfortable talking about EOL (Deffner and Bell, 2005; Kurz and Hayes, 2006). These results were supported by other studies. Dunn et al. (2005) conducted a descriptive correlational study on

58 registered nurses practicing in oncology and medical surgical nursing. The majority of the sample was female with a mean age of 41 years. The nurses' attitudes towards caring for dying patients were measured by the FATCOD scale. The results of the study revealed that nurses who reported spending a higher percentage of time in contact with terminally ill or dying patients reported more positive attitudes. One explanation for the previous studies results is that nurses exposed briefly to dying patients during their studies, and as they care for dying patients, their coping developed and their skills improved (Weigel et al, 2007). The more exposure to death and dying led to more awareness of one's own emotions. Vejlgaard and Addington-Hall (2005) studied 174 nurses using a cross-sectional survey of a mailed, self-administered questionnaire answered anonymously. The researchers found that 59% of them agreed that the dealing with dying patients makes one aware of one's own feelings regarding death.

Age has a significant influence on nurses' attitudes towards caring for dying patients (Lange et. al., 2008; Barrere et al., 2008). Lange et. al. (2008) used the FATCOD scale to study nurses' attitudes towards caring for dying patients. The study results showed that nurses aged 50 years and older had higher mean score of attitudes than nurses aged 20–29 years, and nurses aged 40–49 years had significantly higher mean score of attitudes than nurses aged 20–29, indicating that older nurses had more positive attitudes towards caring for dying patients than younger nurses. Further study found that younger adults tend to report higher levels of anxiety when caring for dying persons than do middle-aged adults (Abdel-Khalek and Al-Kandari, 2007), and older nurses felt more comfortable talking about EOL issues than younger nurses (Deffner and Bell, 2005; Kurz and Hayes, 2006). This was also clear, if young healthcare providers had not seen someone die before they graduated and became a nurse (Neuberger, 2003; Dunn et. al., 2005). Also, it was found that younger age was more conducive to attitude change after an educational intervention (Barrere et al., 2008).

Sex-related differences in attitudes towards caring for dying patients and anxiety of caring are real rather than artificial, and it is most probable that these differences are the product of differential socialization of men and women, as supported by studies conducted on Arab samples (Abdel-Khalek and Al-Kandari, 2007). Women were found to be more open to death-related thoughts and feelings, and men were found to be somewhat more concerned about keeping these thoughts and feelings in check. The relatively higher level of reported death anxiety among women perhaps contributes to empathy with dying and grieving people and the desire to help them cope with their ordeals (Abdel-Khalek and Al-Kandari, 2007). This is explained by the close relationship of personality characteristics of femininity with anxiety, and, thus fear of death (Hegedus, Zana, & Szabo, 2008). It was argued that the higher levels of empathy were associated with higher levels of anxiety of death and caring for dying (Abdel-Khalek and Al-Kandari, 2007).

Arabic and Islamic studies

Studies were scarce in Arab and Islamic countries. Three studies were found that studied the relationship of nurses' demographics with their attitudes towards caring for dying patients. The first study was conducted by Iranmanesh et al. (2009). The study used a descriptive comparative design to examine Iranian student nurses' attitudes towards death and caring for dying patients. The sample of the study was 110 Iranian nurses. The FATCOD scale was used to measure the student nurses' attitudes. The result indicated that nurses who were educated about death and dying had more positive attitudes towards caring for dying patients than nurses who had no education.

The second study was conducted in Egypt by Ali and Ayoub (2010). The study used a descriptive correlational design to assess nurses' attitude towards death and caring for dying patients and to examine relationships among demographic variables and nurse's attitudes

towards death and caring for dying patients. The sample of the study was selected conveniently and consisted of 197 Egyptian nurses working in oncology center, and medical and surgical departments. The nurses' attitudes were measured by the FATCOD scale. The results of the study revealed that 37.6 % had a positive attitude, 3.6 % had a negative attitude, and the majority of nurses had fair attitude (58.9 %). The participants' scores ranged from 64 to 120 with a mean score of 94.4. The study also showed that there was no statistically significant relationship between nurse's age, work place, years of experience, and total scores of attitudes scale. But there was a statistically significant relationship between nurses' educational level and their scores on attitudes scale. This indicated that highly educated nurses tend to have more positive attitudes towards caring for dying patients than less educated nurses.

The third study was conducted by Abdel-Khalek and Al-Kandari, (2007) on an Arab sample in Kuwait. The focus of the study was on the relationship of gender with death anxiety and working with dying patients. Other nurses' demographics were not included in the study. The study found significance differences between male and female related to death anxiety and caring for dying patients.

Nursing academic education has been found to have no relation with nurses' attitudes towards caring for dying patients. Previous studies found no significant relationship between nursing degree and attitudes towards death and dying (Barrere et al., 2008; Dunn et al., 2005). Barrere et al. conducted the study on nurses of three educational levels (36 High school diploma nurses, one Associate nurse and one Bachelors nurse). The other study was conducted by Dunn et al. on nurses of four educational levels (25 Associate nurses, 4 Diploma nurses, 27 Bachelors nurses and one Master's degree nurse). The insignificant results of the two studies might be related to the inequality of the sample size of the educational levels.

Previous death education

Kurz & Hayes (2006) found that implementing a death education program was associated with reduced death anxiety and improved attitude towards caring for the dying. Similarly, Dunn, et al. (2005) found that developing continuing education programs that teach effective coping strategies that aim to prevent death anxiety may benefit nurses who have had little experience with dying patients and their families. Other studies also found that students who were educated about death and dying had more positive attitudes towards caring for people than who were not (Ferrell, Virani, & Malloy, 2006; Barrere et al, 2008; Brajtman et al, 2007). In contrast, Mallory (2003) conducted a study on 104 junior undergraduate nursing students using a pretest posttest control group design. The study used the ELNEC for educational program. Nurses' attitudes were measured by the FATCOD scale. The study found that previous death education did not have an effect on nurses' attitudes towards caring for dying patients, in spite of very high attitude scores. However, this result may be due to the small number of participants who had previous death education (six nurses). Similarly, Barrere, et al. (2008) studied 73 student nurses and found no significant effect of previous death education on dying attitudes. These studies recommend continuity of EOL education at regular intervals to keep the positive effects on nurses' towards caring for dying patients.

Past death experience

Previous studies found a relationship between recalling first death experience, death anxiety, and death attitude (Knight, Elfenbein, & Capozzi, 2000) and found that the experience with individuals who were dying has an influence on attitude change (Barrere et al., 2008). Iranmanesh et al. (2009) conducted a descriptive comparative study on 110 Iranian students from two nursing faculties located in two different cities. Student nurses in Bam city

experienced death of thousands people as a result of earthquake. The nurses' attitudes towards caring for dying patients were measured by the FATCOD scale. The result revealed that student nurses who had death experience gave less care to people at the end of life compared to the other student group who did not have such an experience.

Educational program

Attitudes can be changed through education, experiences and exploration of feelings, attitudes, self beliefs, and others (Wessel and Rutledge, 2005). Care for the most seriously ill patients requires specialist knowledge and training of both doctors and other health care professionals (Hegedus, et al., 2008). The provision of academic courses and continuing education programs regarding end of life is a vital need for students and healthcare professionals (Wu & Volker, 2009). Many research findings support the importance of educational programs in changing the attitude of nurses towards caring for dying patients. (Kurz & Hayes, 2006; Iranmanesh et al, 2009; Dickinson et al., 2008).

Although, nurses play a pivotal role in palliative and end-of-life care (Dickinson et al., 2008), nurses either do not receive end-of-life care topics in their nursing school curricula (Dickinson et al, 2008), or the curricula do not contain enough topics related to care for dying (Mallory, 2003). Only in recent years have these topics been included in the nursing curricula (Dickinson et al, 2008). It seems, therefore, logical that nursing school curricula should include these topics in their course provisions (Dickinson et al, 2008).

Duration of an educational program

Several studies evaluated the change in nurses' attitude towards death and dying after implementing certain educational programs. The studies focused on the content and duration of programs and how they reflected on nurses' attitudes. There was large variation in

outcomes of the studies in relation to the duration of the end of life educational program and the effect of those programs on nurses' attitudes. In a study of Frommelt (2003), an educational program of 45 hours over 15 weeks was applied. The study used pretest posttest control group design. The educational program was conducted on a convenience sample of 115 junior undergraduate nursing students. The study used theoretical and role play methods. The result of the study revealed the effectiveness of an educational program on improving nurses' attitudes. The attitudes of the intervention group were found to have changed positively while the attitudes of control group were not significantly changed. Another study was conducted by Malloy (2003); the study used the same design on 104 students and using the same teaching methods in addition to clinical experience with patients. The results revealed positive changes in the intervention group attitudes while no change was found in the control group's attitudes. Similarly, Barrere et al. (2008) conducted a study using a quasi-experimental, longitudinal repeated measures design with no control group. The sample was 103 senior baccalaureate nursing Students. The educational material was integrated through the nursing curriculum and presented theoretically and clinically. The nurses' attitudes towards caring for dying patients were measured by the FATCOD scale. The results revealed positive changes in nurses' attitudes. In contrast, a study conducted by Wessel and Rutledge (2005) on 33 nurses showed different results. The study had only an intervention group. Although the educational program was conducted over 6 months, and the FATCOD scale was used to measure nurses' attitudes towards caring for dying patients, it did not change the nurses' attitudes towards caring for dying patients. The reason for ineffectiveness of the educational program may be related to the use of convenience sample and the sample size.

Other studies used different tools to measure nurses' attitudes and found similar changes in attitudes of nurses after receiving educational programs. Easom et al. (2006) conducted a study on a purposive sample of nine registered nurses and licensed practical nurses. The

study used pretest posttest design with no control group in addition to use of qualitative design. The nurses' attitudes towards caring for dying patients were measured by the End-of-Life Attitudes Survey. The nurses received an educational program conducted in six sessions in a three-week period. The sessions were offered in the morning and repeated in the afternoon. Each student was allowed to only attend one of the classes offered on a specific day. The educational program was given using classroom educational presentations. The results of the study revealed positive changes in attitudes of the nurses. This result was supported by other similar studies. Delvaux, Razavi, Marchal, Brédart, Farvacques, & Slachmuylder (2004) conducted a study on a random sample of 115 oncology nurses using pretest posttest design. The educational program took 105 hours and it was given using theoretical presentation, role play and clinical experience. The attitudes of nurses were measured by the Semantic Differential Attitude Questionnaire (SDAQ). The result of the study showed that nurses' attitudes towards caring for dying patients changed positively.

According to Caton and Klemm (2006), a period of five months or even one year was needed to develop a positive effect. Adriaansen and Van Achterberg (2008) reviewed seven articles about attitudes towards caring for dying patients from 1993-2005. The studies included two training programs for undergraduate students and five training programs for postgraduate nurses. The educational programs ranged in duration from 6 hours to 106 hours. The studies used a pre-test post-test design and found that attitudes were changed positively in all studies except in studies of short duration (six hours). The study of a six-hour educational program didn't have any effect on nurses' attitudes. This review, along with reviews of other articles, revealed the need to determine the minimum duration of an educational program required for undergraduate nurses and nurses working in health care settings. Given the nursing shortage and costs to institutions to release nurses for continuing education, time limitations must be considered (Ferrell et al., 2006).

Current Nursing Curricula

More attention to end of life issues is given today, yet the amount of curricula content that deals with the wide range of end of life care issues continues to be minimal (Walsh and Hogan, 2003). Despite some increase in curricular inclusion, regarding care of dying patients, it appears that relevant instruction, clinical experience, and assessments of students' attitudes, knowledge, and skills are still limited, even as they pertain to patients who die in hospitals (Birkholz et al., 2004).

Previous studies found that more than 60% of nurses rated their basic nursing school education on end-of-life care as inadequate (Dunn et al, 2005; Ferrell et al., 2006). similarly, Hwang, Lin and Chen (2005) found that teaching death and dying is not sufficient for nursing students, who are expected to care for the spirituality of all clients, including the dying. However, nursing students, as well as national organizations, recognize the need for adequate end-of-life education that is both didactic and experiential, to prepare nurses to assist dying patients and their families (Birkholz, et al., 2004).

The curricula of many nursing schools do not routinely include EOL education, and many nursing texts cover a limited number of EOL topics (Caton and Klemm, 2006).
In addition, during traditional clinical rotations, nursing students are not often involved in the care of patients who are dying (Leighton and Dubas, 2009). It seems, therefore, logical that nursing school curricula should include these topics in their course provisions (Dickinson et al., 2008).

Impact of EOL education

The effect of education on nurses' attitudes towards death and caring for dying patients starts from the time of study in nursing programs. It was found that early and ongoing involvement in end-of-life educational experiences may allow students to acquire the

attitudes, skills, and knowledge essential to implement supportive end-of-life care interventions (Mallory, 2003).

Education on issues related to death and dying were found to have a positive effect on medical students and health care workers' attitudes towards death (Hegedus et al, 2008) and caring for the dying (Kurz and Hayes, 2006; Hegedus et al, 2008; Barrere et al, 2008; Wessel and Rutledge, 2005; Mallory, 2003; Brajtman et al, 2007); and may benefit nurses who have had little experience (Dunn et al, 2005). Moreover, EOL education improves therapeutic communication behaviors (Mitchell et al, 2006); prevents maladaptive coping strategies (Jenull and Brunner, 2008) and alleviated nurses’ anxieties (Kurz and Hayes, 2006; Dunn et al, 2005; Hegedus et al, 2008). These outcomes of education were supported by other nursing studies (Mallory, 2003; Wessel and Rutledge, 2005; Brajtman et al, 2007).

Despite the results of most nursing studies about the positive effect of educational programs in improving nurses' attitudes towards caring for dying patients (Frommelt, 2003; Mallory, 2003; Delvaux et al., 2004) , a few of the studies had contradicting results or found no effect of education on nurses' attitudes (Wessel and Rutledge, 2005). The differences in results could be related to several factors such as sampling method and length of educational program. The majority of the attitudes studies were conducted on students through integrating EOL courses in nursing curricula or just studying the impact of the current nursing curricula on death and dying attitudes. On the other hand, few studies were performed to measure the impact of certain EOL educational program on clinical nurses' attitudes towards death and dying.

Education in end-of-life care is complex (Hughes, Parker, Payne, Ingleton and Noble, 2006). It requires specialist knowledge and training for both doctors and other health care professionals (Hegedus et al, 2008). Moreover, it requires developing attitudes, approaches to

care, and the ability to work with emotionally difficult situations. It is difficult to cover all aspects of palliative care in a short period of time (Ferrell et al., 2006).

The literature included recommendations for adding certain end-of-life contents in any educational program; some contents (e.g. spiritual care) can be modified according to the culture of participants. For any educational program, it is recommended to include the following content: Overview of hospice ideals (Wessel and Rutledge, 2005), Quality management in end-of-life care (Wessel and Rutledge, 2005), Pain management (Jenull and Brunner, 2008; Wessel and Rutledge, 2005), Symptom management (Jenull and Brunner, 2008; Wessel and Rutledge, 2005), Handling of grief and bereavement (Jenull and Brunner, 2008; Wessel and Rutledge, 2005), Communication with all persons concerned (Jenull and Brunner, 2008; Wessel and Rutledge, 2005; Ciccarello, 2003), Grief and loss (Ciccarello, 2003), Managing prognostic uncertainty (Ciccarello, 2003), Goals of end-of-life care (Wessel and Rutledge, 2005), Nutrition at end of life (Wessel and Rutledge, 2005), Ethics resource (Wessel and Rutledge, 2005), Issues of spirituality (Wessel and Rutledge, 2005; Ciccarello, 2003), Complementary therapies (Ciccarello, 2003).

Standardized projects are available that include all necessary contents of EOL care. An example of these projects is the ELNEC (funded mainly by the Robert Wood Johnson Foundation and additional funding from the National Cancer Institute) and the TNEEL (Toolkit for Nursing Excellence at End-of-life Transition) developed by University of Washington School of Nursing (Wilkie, Lin, Judge, Shannon, Corless, Farber, & Brown, 2004). ELNEC was recommended by many researchers to be integrated in nursing baccalaureate program (Barrere et al, 2008) and in continuing education. ELNEC is a comprehensive educational program to help nurses improve end-of life care in all areas of nursing (Denham, Meyer, Rathbun, Toborg, & Thornton, 2006). ELNEC initially focused on

improving EOL care within the United States but has since expanded its international outreach activities (Wu & Volker, 2009).

Many studies were conducted to assess the effectiveness of ELNEC on nurses' attitudes and death anxiety. A study conducted by Kurz and Hayes (2006) on a sample of 59 nurses to measure impact of ELNEC Program's on registered nurses' death anxiety, death attitudes, and knowledge over time. The study used a quasi-experimental, longitudinal design. The study found that the ELNEC program was effective in increasing nurses' knowledge on end-of-life care, as well as decreasing death anxiety. Death anxiety increased at the first posttest, decreased significantly at 6 months, and then returned to pre-test levels at 12 months.

Method of EOL training

Knowledge alone does not contribute significantly to the attitudes of nurses, inversely; cognitive and affective information significantly, and independently, contributes to attitudes of the nurses (Wowchuk, et al., 2007). Self-awareness of nurses' own beliefs towards their own death and dying is especially important for them because awareness of the similarities and differences between their belief system and those of their patients enables them to take care of terminally ill patients as whole persons in a more empathic way (Kim and Lee, 2003); and this can be achieved by choosing the appropriate teaching methods. According to Frommelt (2003), end-of-life education can be accomplished via videos, lectures, readings, discussions, and clinical exposure to dying patients.

Within the nursing literature, there is extensive support for the use of both didactic and clinical components to teach issues related to death and dying (Mallory, 2003; Caton and Klemm, 2006; Birkholz et al, 2004; Wessel and Rutledge, 2005; Brajtman et al, 2007; Adriaansen and Van Achterberg, 2008). A research study conducted by Mallory (2003)

shows that a well-organized systematic exposure to dying patients and their families, while learning about how to care for dying patients, enhances a student's positive attitude towards caring for dying patients.

In addition to didactic and clinical components, narrative reflection (Wessel and Rutledge, 2005; Brajtman et al, 2007; Iranmanesh et al, 2009), exposure to dying patients during the time of receiving theoretical knowledge (Brajtman et al, 2007; Wessel and Rutledge, 2005), reading written materials, watching EOL related videos, and sharing of experiences of the group (Wessel and Rutledge l, 2005) increase the effect of an educational program. A study of 33 nurses found that a video-, reading-, and writing-based intervention positively affected attitudes (Wessel and Rutledge, 2005). The reflection method was supported by a study on students at the University of Iowa's College of Medicine (USA); it found that a lecture-based course on end-of-life care, integrated with reflective exercises, may prove to be useful (Dickinson et al., 2008).

Positive effects can be attained if EOL education not only teaches knowledge and skills, but also fosters an attitude of caring and compassion (Torke, Quest, Kinlaw, Eley, & Branch, 2004). Moreover EOL educational program should takes into account the beliefs and emotions of nurses, and includes explorations of self-care, self-healing, the resolution of issues of loss and grief, and mutual support (Wowchuk, et al, 2007).

Summary of the literature review

The reviewed literature included studies in Arab and non-Arab countries. Most of the studies were conducted in non-Arab countries. The results of those studies showed that nurses can benefit well from EOL educational program even with different duration of educational program. The benefit included improving in nurses' attitudes towards caring for dying patients through decrease in death anxiety, fears and other undesired emotions. The

improvement in nurses' feelings reflected on their quality of care provided for patient and family.

Regarding the Arab studies on attitudes, limited studies were found that assessed the attitudes of nurses towards caring for dying patients. Only two studies were found in Arab countries (Kuwait and Egypt) and one study in an Islamic country (Iran). ELNEC, a standard EOL educational program, was initially used in USA and later in other countries. The educational program was conducted in different durations ranging from 6 hours to 106 hours. The results showed variant effectiveness of those programs on nurses' attitudes.

On the other hand, many research studied the effect or association of nurses' demographics on their attitudes. Studies results showed that many nurses' demographics could affect their attitudes positively or negatively. The differences in the results could be related to several factors including sample size, selection and culture of the samples.

The review of literature revealed that educational programs can improve nurses' attitudes and can be conducted at different durations. Some of the studies used an EOL educational program as a separate course, while other studies integrated this program in other nursing courses. Few studies were conducted using a short duration program. The results of those studies were contradictory. Some studies showed positive effect of short duration on attitudes while others showed no effect.

Very few studies were conducted in Arab countries that used ELNEC program. This made it necessary to conduct more research on Arab countries to examine the effectiveness of ELNEC program in changing attitudes. This study assessed this standardized program in improving nurses' attitudes and examined the application of this educational program within a two-day duration. The selection of this duration was based on the minimum time needed to present the content of ELNEC and the feasible duration for most health institutions. The study will add an evidence of the effect of the educational program that uses the ELNEC

modules on attitudes of Jordanian nurses towards caring for dying patients. Moreover the study will add an evidence of the relationship of certain nurses' demographics with their attitudes. The result of this study and results of other Arabic studies can be reviewed to understand nurses' attitudes towards caring for dying patients within the Arab culture.

Chapter three

Research Methodology

This chapter describes the research design, setting, population, the instrument, the demographics questionnaire, data collection, data analyses, and ethical considerations.

Research Design

To examine the effect of the educational program (intervention) on nurses' attitudes towards caring for dying patients, an experimental approach using pretest posttest control group design was used to guide the study. An experimental design is considered the most powerful method available for testing hypotheses and cause-effect relationships between variables (Polit and Beck, 2004).

Intervention and control groups were invited to complete the demographics questionnaire (Appendix 2) and the Frommelt Attitude Toward Care of the Dying (FATCOD) Scale (Appendix 3). Then the intervention group participated in a two-day educational program (Appendix 1) based on the standard modules (ELNEC) (Wu & Volker, 2009). The control group was not included in the educational program. They didn't receive any education related to end of life care during the period of conducting the educational program for the intervention group. At the end of the educational program, both groups were asked to complete the FATCOD questionnaire. Figure (1) illustrates the study design:

Intervention Group	R	O1	x	O2
Control Group	R	O1		O2

Figure 1. Research Design (key: R: randomization, O: observation, x: intervention).

Threats to research validity and control of threats are very important to be considered to have reliable data. In this study, threats to internal validity could occur by completing the pre-test questionnaires that could have had an effect on the post-test performance. This is expected in a pretest posttest design. External validity in this study could be affected by the presence of the researcher of the study and conducting the study in one cancer center. The internal and external threat to validity were controlled by using random sampling (Polit and Beck, 2004) , conducting the intervention directly after completing the pre-test procedure, using a valid and reliable instrument, and conducting the intervention by qualified persons other than the researcher himself.

Sample and Sampling

The target population was all registered nurses who provide care for dying patients in Jordanian cancer centers. The study sample was randomly selected from a cancer center in the city of Amman using systematic sampling method. This cancer center had 488 registered nurses working in different nursing areas and provides direct care for cancer patients. The inclusion criteria were: Jordanian registered nurses caring for dying patients. The exclusion criteria were: newly recruited Jordanian nurses with an oncology experience less than three months and nurses whose work did not relate to caring for dying patients. A list of all eligible nurses was obtained from the nursing director. Systematic randomization was used to select the sample. Then after completing the study questionnaires, randomization using block design within the wards of working areas was used to assign participants to either intervention or control group. The sex and oncology experience were used as the bases of block randomization.The block randomization were used to avoid contamination of intervention and control groups.

According to the G*Power3 software program (Faul, Erdfelder, Lang, & Buchner, 2007). Using a power of 0.95, a significance level of 0.05, two-tailed, and a moderate effect size (d= 0.25), the study requires a total sample size of 132 for both groups. Typically, interventions have modest effects, and variables are usually only moderately correlated with one another (Polit & Beck, 2004). The medium effect size is the accepted effect size used for the most applied researches (Polit & Hungler, 1999). The power for this study was calculated on the assumption that the intervention and control group will be equally divided considering the sample size and setting. For the purpose of this study, at least 66 participants per group were required, which meets the requirement of at least 30 participants per group according to the Central Limit Theorem.

Settings

In Jordan, specialized palliative care services are offered by two organizations: Al Malath Foundation for Humanistic Care and King Hussein Cancer Centre; in addition to supportive care (symptom management care) that is offered at Al Basheer Hospital (National Cancer Institute, 2007).

This study was conducted in a non-governmental, non-profit cancer center in the city of Amman, the capital of the Hashemite Kingdom of Jordan. The center, where the study was conducted, is a comprehensive cancer center in the Middle-East. It provides care and treatment for both adult and pediatric patients. It has 170 beds and treats over 3500 new cancer patients each year from Jordan and the region. Since October 2004 the hospital has offered two key palliative care services: hospital support and home care for adults with cancer. Terminally ill patients are treated in all wards in the center, including medical, surgical, Intensive Care Unit, pediatric and palliative care wards (King Hussein Cancer Foundation, 2009).

This center was chosen to conduct the study for the following reasons:

1. The center has more than 450 Jordanian nurses who provide comprehensive care for cancer patients.
2. The majority of cancer patients in Jordan receive their treatment in this institution (Ministry of Health, 2007).
3. The center has many dying patients who receive their EOL care in the palliative and hospice unit and other wards in the center. Thus, nurses in this cancer center have more opportunities to provide care for dying patients at the end-of-life than nurses in other hospitals.
4. The center is the only dedicated cancer centre in Jordan (Jordan, 2005).

Measurement and Instrumentation

The dependent variable (attitudes towards caring for dying patients) was measured by the FATCOD scale, Form B. It is important to note that the instrument has two forms: A and B (Barrere, et al., 2008). Form A is an old form, and only a few studies have used it. Form B is a new form of the instrument. Form B was used in several nursing studies. In addition, form B has some demographic data such as death education and death experience that can be added to the study. The independent variable was an educational program on EOL care. The EOL educational program was based on ELNEC modules and taught by a group of health care professionals who have a long experience in treating and caring for dying patients. Moreover, those health care professionals received training of trainer (TOT) on ELNEC modules for Jordanian nurses (Stjernswärd et al., 2007). The educational program was facilitated and coordinated by the researcher of this study. Other variables that may have an association with attitudes towards caring for dying patients such as education level, professional experience, and previous experience with death were also examined. The

instrument for this study consisted of two parts: the FATCOD scale and the demographic questionnaire.

Frommelt Attitudes Toward Care of the Dying (FATCOD) Scale

The FATCOD Scale (Appendix 2), Form B, was used for measuring nurses' attitudes towards caring for dying patients. It was developed and validated by Katherine Frommelt in 1988 (Frommelt, 1991).

The FATCOD was used in several previous studies conducted on nurses and other health care professionals. The FATCOD scale was used in Islamic and Arabic studies (Ali & Ayoub, 2010). The form A and form B of this scale have the same questions on the attitudes towards caring for dying patients, but form B has some demographic data that were used in this study. Permission was obtained from the authors to use the FATCOD tool for this study (Appendix 4). The instrument consists of 30 items using a five-point Likert scale to measure respondents' attitudes towards caring for dying patients. Two-thirds of the items relate directly to a person's attitudes towards the patient and one-third relates directly to attitudes towards the family members of the terminally ill person (Mallory, 2003). Patient and family are considered the key component of EOL care (Sullivan et al., 2005). Attitudes towards family reflect on attitudes towards patient. The FATCOD scale had items related to attitudes towards patient and items related to attitudes towards family. All items, at end, measure nurses' attitudes towards caring for the dying patiens.

The instrument consists of an equal number of positively- and negatively-worded statements, ranging from strongly disagree (1) to strongly agree (5). Scores are reversed for negative items. Possible scores can range from 30–150. There is no cut point for acceptable score for attitudes towards caring for dying patients. A higher score indicates a more positive attitude towards caring for this patient population (Mallory, 2003).

The instrument was used in its English language form since Jordanian nurses understand English as a second language. Moreover, a pilot study of the instrument revealed that the language of the scale is simple and understood by the nurses in the study. On the other hand, the process of translation of the instrument into Arabic language is lengthy and requires full validation that the instruments properties were preserved and this would be like developing a new instrument which is beyond the scope of my study.

Validity.

Validity of the FATCOD scale was examined by a panel of expert judges in the field (Mallory, 2003). Based on their findings, the content validity index (CVI) of the FATCOD in 1988 was 1.00 with a computed inter-rater agreement of 0.98 (Lange et al., 2008; Dunn, et al., 2005; Brajtman, et al., 2007). For this study, face and content validity was examined by a group of palliative care specialist. The instrument was found to be valid for the use with Jordanian nurses.

Reliability.

Reliability of the FATCOD was tested in previous studies. Reliability was established by Frommelt, via a test-retest procedure completed twice (Mallory, 2003). The Pearson product-moment correlation coefficients obtained were $r = 0.94$ and $r = 0.90$ respectively (Barrere et al., 2008; Dunn et al., 2005). In a more recent study, the FATCOD demonstrated an internal consistency score (alpha coefficient) of 0.89 (Wessel and Rutledge, 2005). According to Polit and Beck (2004), reliability coefficients above .70 usually are considered satisfactory. These statistics confirm that FATCOD is both valid and reliable for use.

FATCOD has been used in many Arab and non-Arab countries (Lange et al, 2008; Dunn et al., 2005; Dickinson et al., 2008; Ali and Ayoub, 2010; Iranmanesh et al., 2009). In

addition to its use in 79 colleges/universities and healthcare systems in the United States (Barrere et al., 2008). Reliability of the FATCOD for the sample of this study was .82 based on Cronbach alpha test.

Demographics Questionnaire

Based on reviewing previous studies, the following demographics were selected for inclusion in the current study: age, gender, educational level, general nursing and oncology nursing experience, previous death education, past and recent death experience and recent care for the dying (See Appendix 2). The above variables were controlled by using random sampling methods and repeated measures for statistical analysis.

Educational program (intervention) Component

The program components are based upon the End-of- Life Nursing Education Consortium (ELNEC) modules. ELNEC initially was focused on improved EOL care within the United States but has since expanded its international outreach activities (Wu & Volker, 2009). The ELNEC content was validated by many studies (Paice, Ferrell, Coyle, Coyne & Callaway, 2008; Ferrell, Virani, Grant, Rhome, Malloy, Bednash & Grimm, 2005).The ELNEC-core content is divided into nine modules (Ferrell et al., 2006), see Figure 2. .The center where the study was conducted had the permission to use the ELNEC modules for training of health care providers.

The program uses interactive learning, lecture, discussion, small group discussions, role-play and communication with dying patients. The program materials were based on ELNEC modules. The ELNEC includes an instructor manual that guides instructors for using the same material for all participants. Also, the ELNEC modules were the core material for palliative and EOL care training workshop that was conducted at a national level in Jordan.

The workshop was held for the purpose of improving knowledge of health care providers and attitudes towards caring for dying patients. All health care providers who attended the TOT participated in implementing the educational programs for nurses in this center.

Modules
1. Nursing care at the end of Life
2. Pain management
3. Symptom management
4. Cultural considerations in end-of-life care
5. Ethical/legal issues
6. Communication
7. Loss, grief, and bereavement
8. Achieving quality care at the end of life
9. Preparation for and care at the time of death

Figure 2. The ELNEC-core content

Data Collection Procedure

A list of registered nurses who met the criteria was obtained from the director of nursing. The systematic random sampling was used for choosing the sample. Before distributing the questionnaires to all selected nurses, a pilot study was conducted on 30 participants, who were recruited from outside the sample of this study, to test clarity of the FATCOD scale and the demographics questionnaire, ability of nurses to read and understand the items of questionnaire, and to determine how much time the nurses need to complete the forms. The result of the pilot study revealed that nurses were able to read and understand the meaning of all items of the FATCOD scale. In addition, the pilot study found that the nurses need 30-45 minutes to complete the questionnaires.

The next step was distributing the consent form, self-report questionnaires [the demographics questionnaire (Appendix 2) and the FATCOD (Appendix 3)] to both the control and intervention groups. The researcher was available to answer any related question. One-hundred and forty five eligible nurses completed the questionnaires. The eligible nurses

were randomly assigned to intervention or control groups. Since there were 145 eligible nurses, an odd number, 73 were assigned to the intervention group and 72 were assigned to control group.

After assigning participants to the control and the intervention groups, the intervention group participated in a two-day educational program. The control group did not receive any education about end of life care. The program was conducted twice to enable all participants of the intervention group to attend the program, according to their work schedule. The educational program was given in 12 hours over two successive days. There were about 36 participants in each educational session. The participants were recruited from the intervention group. The researcher assigned participants to the educational sessions in coordination with head nurses working in all nursing wards. Each educational session had nurses from different nursing wards. The researcher made sure that all educational materials were the same and the educational programs were presented by the same expert professionals. In addition, the ELNEC have a detailed session plan and material that can help each educator to conduct the same material at any time. The researcher assured that during data collection and conducting the educational program, no major events occurred that might affect nurses' attitudes towards caring for dying patients. But it was expected that some participants might be exposed to caring for more dying patients during the period of conducting the study. The systematic random sampling method and the use of the control group modified the effect of this threat to results by decreasing the differences between the intervention and the control groups. Upon completion of the educational program, the intervention group (n=72) and the control group (n=69) completed the FATCOD questionnaire for the second time. Three nurses from the control group and one nurse from the intervention group withdrew from the study. The collected data before and after intervention for both groups were checked and recorded. The procedures of data collection are illustrated in Figure 3.

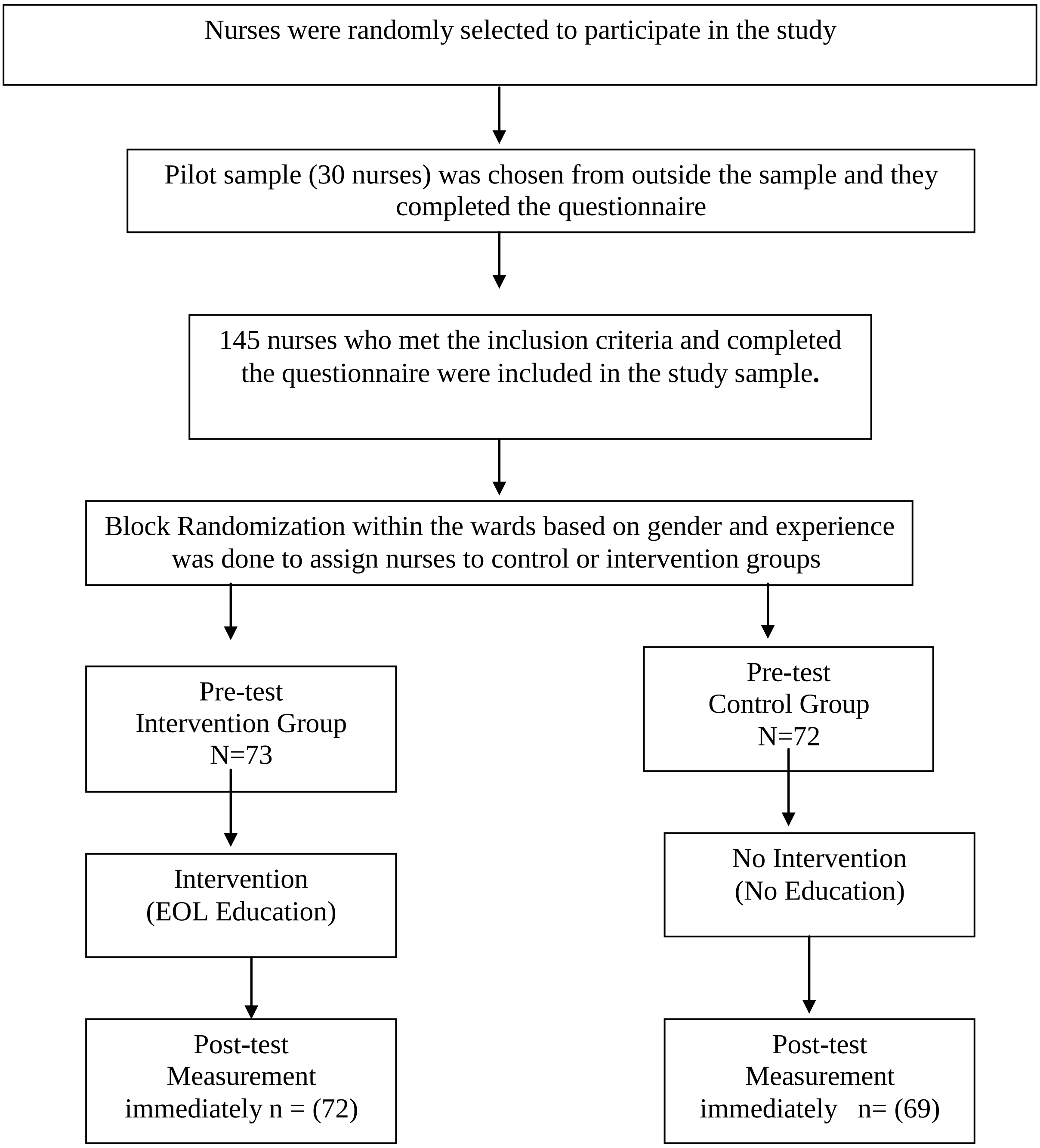


Figure 3. Study Protocol and Data Collection Points

Data Analysis

The Statistical Package for Social Science (SPSS) version 16 was used for data analyses. Descriptive statistics was used to describe the collected data regarding means, standard deviation and frequencies of the sample characteristics.

For the first research questions, the FATCOD scores of the participants (control and intervention groups) before and after the intervention were obtained and recorded. Then significant differences between the FATCOD scores before and after intervention were analyzed using the repeated measures analysis of variance.

The second research question was analyzed by categorizing nurses groups, according to the level of the variable defined in the questionnaire (e.g. previous experience in dealing with terminally ill persons). For each of the variables, the mean scores were compared between groups, categorized by the level of variable. The t-test and ANOVA was used for the analysis of the differences in the FATCOD mean scores between and among groups. The study used a 0.05 level of significance for all statistical analyses. The results were used to accept or reject the null hypotheses.

Ethical Consideration

An approval was obtained from the Ethics Committee of the Faculty of Nursing at the University of Jordan and from the Institutional Review Board (IRB) of the Cancer Center in which the study was conducted (See Appendix 5).

The participants were invited to complete the questionnaires voluntarily without any coercion. Informed consent was obtained from each participant using the consent form of the cancer center where the study was performed (Appendix 6). The form explained to the participant the following: purpose of the study, participant requirements, benefits, risks, and contact information for questions. Full disclosure for respondents was conducted to inform

them of their right to participate in, or withdraw from, the study voluntarily without any consequences.

Confidentiality of the respondents was ensured throughout the study. Data were secured correctly, saved in the researcher's personal computer, with hard copies in a locked cabinet. Moreover, the questionnaire was coded by numbers to maintain confidentiality, the list of names was saved in separate secure place, and no one, except the investigators, has access to study data. The questionnaires were accompanied by a cover letter (Appendix 7), which clarified the purpose of the study, and the rights of participants and confidentiality of information.

Summary of research methodology

An experimental approach using pretest posttest control group design was used to guide the study. One hundred and forty five nurses were randomly selected and randomly assigned to the control and to the intervention groups. Seventy three were assigned to the intervention group and seventy two were assigned to the control group. The intervention group participated in the educational program while the control group was not included in the educational program.

A cancer center in the city of Amman was chosen since it is the only dedicated cancer centre in Jordan and there were about 500 nurses caring for dying patients in all nursing wards of the center.

The demographics questionnaire and the Frommelt Attitude Toward Care of the Dying scale were used to measure nurses' attitudes towards caring for dying patients before and after implementing the two-day educational program. The EOL educational program was based on ELNEC modules and taught by a group of health care professionals who received TOT on ELNEC modules for Jordanian nurses. The ELNEC-core content is divided into nine

modules. The program uses interactive learning, lecture, discussion, small group discussions, role-play and communication with dying patients. The educational program was given in 12 hours over two successive days.

SPSS was used for data analyses. The significant differences between the FATCOD scores before and after intervention were analyzed using the repeated measures analysis of variance. The t-test and ANOVA was used for the analysis of the differences in the FATCOD mean scores between and among groups. The study used a 0.05 level of significance for all statistical analyses.

Ethical Consideration was considered in conducting the study. An approval was obtained from the Ethics Committees. Informed consent was obtained from each participant. Confidentiality of the respondents was ensured throughout the study.

CHAPTER FOUR

Results

The aim of this study was to examine the effect of an educational program and nurses' demographics on Jordanian nurses' attitudes towards caring for dying patients. To achieve this, a sample of 145 nurses was chosen from 488 nurses working in a cancer center at Amman.

Descriptive and inferential statistics were used to analyze the study data. Descriptive statistics were used to describe the characteristics of the participants. The inferential statistics were used to analyze the effect of the educational program and nurses' demographics on their attitudes towards caring for dying patients.

Participants' Characteristics

Two hundred and nine nurses, who were randomly selected, accepted to participate in the study (response rate was 83.6 %). Initially, the subjects were screened for eligibility using the inclusion criteria. The final sample consisted of 145 registered nurses working in inpatient and outpatient units. A list of selected participants was used to distribute the questionnaires to the interventional and control group. The participants were working in different nursing wards or units. Participants were randomly assigned to two groups, the interventional group and the control group. The total number of participants who completed the post-test questionnaire was 142 as can be shown in Table 1.

Table 1

Number of participants before and after intervention (N = 145)

	Intervention (n)	Control (n)	Total (n)
Pre-test	73	72	145
Post-test	72	69	141

The Statistical Package for Social Science (SPSS, version 16, Chicago Inc.) was used to analyze the data. The descriptive analysis showed that the majority of the sample were males (n = 97, 66.9 %), while females nurses formed 33.1% (n = 48). The age ranged from 21 to 29 years old. The mean age was 25 years (SD = 4). The age of most nurses was between 20 and 25years (n =107, 73.8). This means that most participants were young. Also, the majority had Bachelor degree (n =141, 97.2 %) while other nurses had Master degree (n=4, 2.8%). About 84.4% (n =123) of the nurses reported that they had not received training or education in death and dying. More than half of the nurses had no previous experiences with death (n=92, 63.4 %). The majority of nurses had death experience during their work in the cancer center (n =108, 74.5 %). Ninety five of nurses (n=95, 65.5 %) who participated in this study had general nursing experience between one to five years. The majority of the nurses (n =103, 71 %) had oncology experience between one and two years. The demographic details of participants can be seen in Table 2.

Table 2

Demographic characteristics of nurses (N=145)

Variable		n	%
Group	Intervention	73	50.3
	Control	72	49.7
Gender	Male	97	66.9
	Female	48	33.1
Age	20-25 years	107	73.8
	26-30 years	24	16.6
	31-35 years	9	6.2
	36-40years	5	3.4
Education Level	Bachelors Degree	141	97.2
	Masters Degree	5	3.7
Previous	Yes	22	15.2
Death Education	No	123	84.8
Past	Yes	53	36.6
Death experience	No	92	63.4
Recent	Yes	108	74.5
Death Experience	No	37	25.5
General	3 months-11 months	40	27.6
Nursing Experience	1-5 years	95	65.5
	6-10	8	5.5
	More than 10 years	2	1.4
Oncology	Less than one year	34	23.4
Nursing Experience	1-2 years	103	71.0
	2-4	5	3.4
	4-6	3	2.1
Wards	Inpatient	112	77.2
	Outpatient	33	22.8
Recent Care of Dying	Yes	42	29.0
	No	103	71.0

The Educational Program

The first study question was "What is the impact of implementing an EOL educational program on nurses' attitudes towards caring for dying patients ". The FATCOD was used to measure nurse's attitudes towards caring for dying patients. The pretest scores of FATCOD were calculated for the nurses who participated in the study (n=145). The mean score of FATCOD for all participants was 116.4 out of 150 (SD = 113.3). Analysis of the total sample was performed using the percentile as a cut point for negative, fair and positive attitudes. The

P25, P50, P75 were 108.5, 116, and 126 respectively. About 36 (25%) of nurses had negative attitude towards caring for dying patients (score below 108.5), about 37 (25 %) had a positive attitude (score above 126) and 72 (50%) nurses had a fair attitude (score between 108.5 and 126). This may indicate that the majority (75 %) of nurses had fair to positive attitude. The mean scores of nurses' attitudes towards caring for dying patients indicate the need for educational programs to improve nurses' attitudes.

The intervention and the control group were divided equally (73 nurses in intervention group and 72 nurses in control group). Chi square was used to analyze if there were significant differences between the intervention and the control groups before conducting the educational program. The level of significance was 0.05. The results of analysis revealed no significant differences between the two groups (Table 3). The absence of differences between the two groups made them comparable regarding the effect of educational program on their attitudes towards caring for dying patients.

Table 3
Analysis of differences of participants' characteristics between intervention and control groups before implementing the educational program

Variable		Intervention Group	Control Group	P-Value χ^2
Gender	Male	48	49	.768
	Female	25	23	
Age	20-25 years	51	56	.338
	26-30 years	13	11	
	31-35 years	7	2	
	36-40years	2	3	
Education Level	Bachelors Degree	69	72	.177
	Masters Degree	4	1	
Previous Death Education	Yes	10	12	.618
	No	63	60	
Past Death experience	Yes	27	26	.913
	No	46	46	
Recent Death Experience	Yes	56	52	.535
	No	17	20	
General Nursing Experience	3months-11 months	18	22	.368
	1-5 years	50	45	
	6-10	3	5	
	More than 10 years	2	0	
Oncology Nursing Experience	Less than one year	16	18	.437
	1-2 years	55	48	
	2-4	1	4	
	4-6	1	2	
Wards	Inpatient	59	53	.300
	Outpatient	14	19	
Recent Care of Dying	Yes	22	20	.754
	No	51	52	

The post-test were completed by the intervention group (n= 73) and the control group (n=69). Three nurses from the control group did not complete the post test questionnaire. The four nurses withdrew voluntarily from the study. The differences in mean scores between the intervention and control groups can be shown in figure 4.

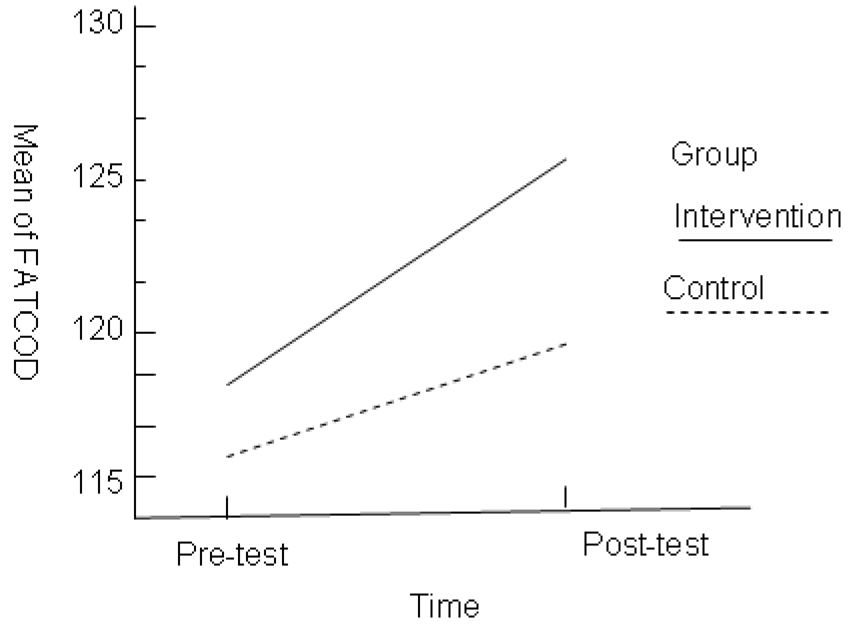


Figure 4. Differences between Pre-test and Post-test mean scores for intervention and control groups

Figure (4) showed a significant increase in attitude scores for intervention group while there was no significant increase in attitude scores of control group. The increase in the attitude scores of control group could be related to the effect of pretest while the significant increase in the attitude scores of the intervention group related to the effect of the educational program.

Repeated measure analysis of variance was used to examine the main effect of educational program on nurse's attitudes towards caring for dying patients. The results showed that there were significant differences in mean scores of attitudes towards caring for dying patients between the intervention and control groups (F = 24.2, p < .001), (Table 4).

Testing for the interaction effect of educational program and group, the repeated measures analysis showed that there was a significant effect by group interaction for the FATCOD scale (F = 9.9, p= .002). This indicated that the response of intervention group was different from that of the control group. The value of F-test (24.2) was high which indicates

that there was significant effect of an educational program on the intervention group (Table 4).

Table 4

Analysis for the effect of an educational program on the nurses' attitudes towards caring for dying patients

Variable	Pre-test		Post-test		Repeated Measures		
	M	SD	M	SD	Effect	F	p-value
Intervention	117.1	14.4	125.6	7.8	Education	24.2	< .001
Control	115.4	12.2	119.6	8.4	Education x Group	9.9	.002

Differences of nurses’ attitudes towards caring for dying patients regarding their demographics

Nurses' age

The second research question was "How do demographic variables, such as age, gender, professional degree, influence the nurses’ attitudes towards caring for dying patients?" Using ANOVA test to study the differences in the mean scores of attitudes towards caring for dying patients, the results showed significant differences among nurses attitudes towards caring for dying patients and nurses' ages (p=.017). The highest attitude score was for nurses between 31-35 years (mean= 122.3), while the lowest score was for nurses over 36 years (mean=107.0) (Table 5). Generally, there is an increase in the mean score of attitudes towards caring for dying patients as the age of nurse increase. But the scores decreased after the age 31.

Nurses' gender

Using *t*-test to study the differences in the mean scores of attitudes towards caring for dying patients, the results showed no significant (p= .243) differences between the mean score of attitudes towards caring for dying patients and nurses' gender. Male nurses had a higher score of FATCOD scale (114.5) than female nurses (117.3), but the differences between male and female nurses were not significant (Table 5).

Nurses' educational level

The differences in the mean scores of attitudes towards caring for dying patients were analyzed using *t*-test. The results showed no significant (p= .106) differences between mean score of attitudes towards caring for dying patients and nurses' educational level. Nurses who had a master degree had a higher mean score of attitudes towards caring for dying patients (127.0) than nurses who had a bachelor degree (116.1). The differences between the scores of the bachelor degree nurses and master degree nurses were clear but no significant differences were found. The sample had only five master degree nurses that may have contributed to the non-significance result (Table 5).

Previous death education

Using *t*-test, the mean score of attitudes towards caring for dying patients for nurses who had taken a specific course on death and dying was 120.2, while the mean score of attitudes towards caring for dying patients for nurses who had no education on death and dying was 115.7. The results showed no significant differences (p = .146) between previous death education and nurses' attitudes towards caring for dying patients (Table 5).

Death Experiences

Nurses with previous experiences with death had a higher mean score of attitudes towards caring for dying patients (118.6) than nurses who had no experience (115.1). However the statistical analysis using *t*-test showed that there were no significant differences (p=.132) in mean score of attitudes towards caring for dying patients between nurses who had previous experiences with death and nurses who had not. Also, nurses who had recent experiences with death had higher mean score of attitudes towards caring for dying patients (117.9) than nurses who had no experience (111.9). The *t*-test showed significant differences (p= .019) in mean score of attitudes towards caring for dying patients between nurses who had recent experience with death and nurses who had not, (Table 5).

Nursing experience

Statistical analysis results showed that nurses with the lowest years of general nursing experience had the lowest mean score of attitudes towards caring for dying patients (109.5). Nurses with general nursing experience between 6-10 years had the highest mean score of attitudes towards caring for dying patients (mean=120.3). However, the ANOVA test showed that there were significant differences between years of general nursing experience and their attitudes towards caring for dying patients (p= .001). Nurses who had more than ten years experience had a mean score of 113.5. The cause may be related to the low number of participants who had more than ten years (Table 5).

Results showed that nurses with the lowest years of oncology experience had the lowest mean score of attitudes towards caring for dying patients (mean= 110.4). The score increased with the increase in the years of oncology experience. Nurses with 4-6 years of experience had the highest mean score of attitudes towards caring for dying patients (mean= 137.7). The ANOVA test showed that there were significant differences among nurses' mean

score of attitudes towards caring for dying patients, regarding their years of oncology nursing experience ($p < .001$) (Table 5).

Nursing Ward

Using *t*-test, the results showed that there were significant differences between nursing wards and their mean score of attitudes towards caring for dying patients ($p < .001$). Nurses working in inpatient wards had a higher mean score of attitudes towards caring for dying patients (118.3) than nurses working in outpatient units and clinics (109.9), (Table 5).

Recent Care for the Dying

Using *t*-test, the results showed that there were no significant differences between recent care for the dying patient and nurses' mean score of attitudes towards caring for dying patients ($p = .498$). Nurses who have recently provided care for the dying had a higher mean score of attitudes towards caring for dying patients (117.5) than nurses who have not recently cared for the dying (115.9), (Table 5).

Table 5
Differences between Participants' Characteristics and Their Attitudes Towards Caring for Dying Patients (n=209)

Nurses' Characteristics		N	M	SD	t-test	ANOVA	P-value
Age (in year)	20-25	107	115.0	13.5	-	3.5	.017*
	26-30	24	122.2	8.6			
	31-35	9	122.3	16.6			
	36-40	5	107.0	12.0			
Gender	Male	97	117.3	13.1	1.2	-	.243
	Female	48	114.5	13.9			
Education Level	Bachelors	141	116.1	13.4	-1.6	-	.106
	Masters	4	127.0	3.8			
Wards	Inpatients	112	118.3	12.6	3.3	-	.001**
	Outpatients	33	109.9	13.9			
Previous death education	Yes	22	120.2	16.6	1.5		.146
	No	123	115.7	12.6			
Past death experience	Yes	53	118.6	15.1	1.5		.132
	No	92	115.1	12.1			
Recent death experience	Yes	108	117.9	14.1	2.4		.019*
	No	37	111.9	9.51			
General Nursing Experience (per year)	<1	40	109.5	10.8	-	5.4	.001**
	1-5	95	119.0	13.7			
	6-10	8	120.3	11.1			
	> 10	2	113.5	.7			
Oncology Nursing Experience (per year)	< 1	34	110.4	10.9	-	6.5	.000**
	1-2	103	117.3	13.3			
	2-4	5	125.8	11.2			
	4-6	3	137.7	2.9			
Recent Care for the dying	Yes	42	117.5	12.0	.7		.498
	No	103	115.9	13.9			

* Significant at 0.05

** Significant at 0.001

Summary of results

This chapter presented the research data. It used The SPSS software to analyze the descriptive and inferential data. The statistical analysis of one-hundred and forty five registered nurses participated in the study showed that there were no significant differences between the control and intervention group before implementing the educational program. The repeated measure analysis of variance showed that there are significant differences in mean scores of attitudes towards caring for dying patients between the intervention and control groups after completing the educational program. The intervention group had significant high FATCOD scores after attending the educational program than control group who did not receive educational program.

The statistical analysis of nurses' demographics using *t*-test for independent samples and ANOVA revealed that there were a significant relationship between nurses’ attitudes towards caring for dying patients and their age, wards, recent death experience, general nursing experience and oncology nursing experience.

Chapter Five

Discussion

Oncology nurses provide care for cancer patients at different stages of the disease. They always care for patients with terminal illness as part of their assignment. Nurses' role involves a close relationship with patients and preparation of patients and their families for death. However, most nursing curricula do not prepare nurses adequately to care for dying patients. The reviewed studies revealed that nurses need more education and experience to handle such stressful situations effectively and to feel comfortable when caring for dying patients.

Arab studies about nurses' attitudes towards caring for dying patients were scarce.The Literature review showed no such studies were conducted on Jordanian nurses. This study compared the intervention group with the control group for the purpose of examining the effectiveness of an EOL educational program on nurses' attitudes towards caring for dying patients. The other important purpose was to analyze influence of nurses' demographics on their attitudes towards caring for dying patients. The reviewed literature showed different results regarding effect of educational programs and nurses' demographics on their attitudes towards caring for dying patients.

Jordanian nurses' attitudes towards caring for dying patients

In this study, it was found that the mean score of attitudes towards caring for dying patients for the majority of the sample was fair to positive. Despite the little experience of the nurses of this study, the attitude scores of Jordanian sample were relatively similar to scores of other previous studies. Also, the study results of nurses' attitudes was similar to that of the Arabic study that was conducted on Egyptian nurses (Ali & Ayoub, 2010). Islamic culture could have a great effect on formulating and improving nurses' attitudes as Islamic culture

encourages caring for the dying person. However, some nurses had lower scores due to lack of adequate knowledge and skills in caring for dying patients. This could be reflected on nurses' ability to communicate with dying patients and provide a good quality of care (Kruse, Melhado, Convertine, & Stecher, 2008).

Influence of an educational program on nurses' attitudes towards caring for dying patients

The conceptual framework of this study suggested that nurses caring for dying patients but lacking EOL education have negative attitudes towards caring for dying patients. The standardized educational program of this study enabled learners to incorporate their new learning into their belief system and transformed or rejected their old beliefs (Mallory, 2003; Barrere et al., 2008). As a result, attitudes changed from negative to positive or improved.

Nurses, in general, lack adequate education on death and dying (Brajtman, et al., 2007). Thus, it is expected that nurses who have knowledge in caring for dying patients will have more positive attitudes towards caring for dying patients than those who have not. This study found significant differences in the post-test scores of nurses' attitudes towards caring for dying patients between the intervention and the control groups. Furthermore, it found significant differences regarding the changes between pre-test and post-test scores in both groups. The differences between the intervention and control group were related to the educational program they attended. This indicated that the educational program was effective in changing nurses’ attitudes towards caring for dying patients. This result was similar to results of most previous studies that were conducted on different nursing samples in different cultures (Frommelt, 2003; Mallory , 2003; Delvaux et al., 2004; Barrere, et al., 2008). Only few studies had contradicting results or found there was no effect of education on such

attitudes (Wessel and Rutledge, 2005), which may be due to sampling method, sample size, length of educational program or other confounding variables.

The intervention and the control groups had no significant differences in their characteristics that may have an association with their attitudes towards caring for dying patients. In addition, there were no significant differences in attitude scores for both groups before conducting the educational program. This confirmed that the changes in nurses' attitudes related to the effect of the educational program and not to their demographic variations. This was clearly evident in the significant increase in the mean scores of attitudes towards caring for dying patients of the intervention group, while the mean scores of attitudes of the control group increased slightly and not significantly.

The previous studies implemented with varying durations of educational programs. The minimum period for those programs was six hours conducted on three sessions (Easom, et al., 2006). But that program did not find significant differences in attitudes towards caring for dying patients between the intervention and the control group. On the other hand, most studies with educational programs of much longer duration found significant results. Some of those programs took one semester or more in nursing college (Barrere et al., 2008). Practically, nurses who have no adequate EOL preparation before or after graduation need some educational program with enough duration that reflects positively on their attitudes towards caring for dying patients. In most health institutions, educational program of short duration are more practical; consequently, there is a need for an educational program of short duration that covers all modules of the educational program and can improve nurses' attitudes towards caring for dying patients. Moreover, there is a need for adding some practical components to the educational program. This will expose participants to real situations. The educators of the educational program can assess participants' attitudes towards caring for dying patients and help them improve their attitudes. This study conducted an educational

program of two-day duration that can cover all modules of ELNEC program using interaction and reflection teaching methods. The attitude scores of the intervention group in this study indicated that a two-day educational program could be sufficient for improving nurses' attitudes towards caring for dying patients. The effectiveness of these educational programs was based on the use of standardized EOL teaching modules. This emphasizes the need for more studies about content and duration of educational program that can keep nurses' attitudes positive and significant.

Influence of participants' characteristics on their attitudes towards caring for dying patients

According to the reviewed studies, there are several nursing demographics associated with attitudes towards caring for dying patients. These include: age, gender, educational level, past and recent death experience, general and oncology nursing experience, previous death education and caring for dying patient. In this study, it was found that age, ward, recent death experience, general and oncology nursing experience and previous death education were the only variables significantly associated with attitudes towards caring for dying patients. Lange et al. (2008) found that age, general experience and oncology experience significantly correlated with attitudes towards caring for dying patients. Also, Dunn et al. (2005) found that the only significant variable with attitudes towards caring for dying patients was the care of terminally ill patients.

According to the data in this study, there were significant differences between nurses' attitudes towards caring for dying patients and their age. Previous studies found that age of nurses correlated with attitudes towards caring for dying patients, and older nurses had more positive attitudes than younger ones (Lange et. al., 2008; Barrere et al., 2008). In this study, most participants were young nurses (21-25 years old), while other studies included different

age groups (most nurses were above 30). Despite differences between this study and previous studies regarding the age of participants, age was still a significant variable. Old nurses had higher attitude scores than young nurses.

This study found no significant differences between nurses' attitudes towards caring for dying patients and gender. Studies on association of gender with attitudes towards caring for dying patients were contrasting. Barrere et al. (2008) found that gender was not a significant factor, which agreed with this study, while Abdel-Khalek and Al-Kandari (2007) found that females had more positive attitudes towards caring for dying patients than males. The higher levels of death anxiety can be related to personality characteristics of femininity, which contributes to empathy with dying and grieving people and helping them to cope with their suffering (Abdel-Khalek and Al-Kandari, 2007). Similarly, Weigel, et al. (2007) found that female nurses exhibited more positive attitudes than male nurses in their ability to care for patients who are at the end of life. Because of a substantial inequality in the sample between male and female nurses, the conclusion of the effect of gender on nurses' attitudes towards caring for dying patients may require further exploration.

The study results showed significant differences between nurses' attitudes towards caring for dying patients and previous education on death and dying. This result supported findings of previous studies (Mallory, 2003). Other studies have similar results regarding improvement in nurses' attitudes towards caring for dying patients but the changes in scores were not significant (Barrere et al., 2008). Perhaps there is a need for further research to investigate the association between taking previous courses in caring for dying patients and attitudes taking into consideration the duration between taking the courses and implementation of the study.

Previous studies had various results regarding impact of death experience on nurses' attitudes towards caring for dying patients. The differences in results could be related to the

period between death experience and conducting the study. This study showed significant differences between nurses' attitudes towards caring for dying patients and their recent personal experiences with death. The results of previous studies varied, some of them found positive changes in attitudes (Knight, et al., 2000; Barrere et al., 2008) while other studies found a negative impact of death experience on attitudes (Iranmanesh et al., 2009). In general, it can be implied that experiences with death change attitudes towards caring for dying patients.

The study results showed a significant relationship between years of general and oncology nursing experience and attitudes towards caring for dying patients. It is clear that nurses with few years of experience, have lower attitude scores while nurses with more years of experience have higher attitude scores. Previous studies found a significant relationship between attitudes towards caring for dying patients and experience (Barrere et al., 2008; Dunn, et al., 2005). Experience means dealing with more dying patients and consequently more positive attitudes (Dunn et al., 2005; Dickinson, et al., 2008; Lange et al., 2008; Wowchuk, et al., 2007). Similarly, Lange et al. (2008) found that oncology experience was the strongest indicators of exhibiting a positive attitude towards caring for dying patients.

The differences in attitudes towards caring for dying patients between nurses working in inpatient or outpatient wards could be related to differences in stage of cancer disease and the time spent in caring for dying patients. Nurses working in inpatient wards have more opportunity and more time to care for dying patients than nurses working in outpatient wards. This reflected on their attitude scores. In this study, nurses working in inpatient wards had higher attitude scores than nurses working in outpatient wards. This result agreed with the previous results that revealed that nurses who cared for a greater percentage of terminally ill patients, had more positive attitudes towards caring for dying patients than nurses who cared for a lesser percentage of terminally ill patients (Dunn et al., 2005; Dickinson et al., 2008;

Lange et al, 2008; Wowchuk et al., 2007).

This study did not find significant differences based on education level (Bachelors or Masters degree). The result should be taken with caution due to the few number of nurses who had a master degree. However, the study results agreed with the previous study results (Barrere et al., 2008; Dunn et al., 2005). But contradict with the Arab study (Ali and Ayoub, 2010). The Arab study revealed that highly educated nurses tend to have more positive attitudes towards caring for dying patients than less educated nurses.

It is clear that the result of this study regarding nurses' demographics was different from other Western countries. In all studies that were conducted on nurses, the attitudes towards caring for dying patients might be affected by culture and religion of the sample. The results of this study and results from other Arabic and Islamic studies confirmed the positive effect of Islamic culture on nurses' attitudes towards caring for dying patients. the Islam encourages Muslims to care for dying patients and help them die peacefully. This reflected on the attitudes of Jordanian nurses towards caring for dying patients.

Conclusion

Oncology nurses deal frequently with dying patients. Their attitudes towards caring for dying patients are critical for providing quality of care. Many factors were found to be related to nurses' attitudes towards caring for dying patients. In this study, oncology experience and some other nurses' demographics had a relationship with their attitudes. EOL educational programs can improve nurses' attitudes towards caring for dying patients, if they used standardized modules and were given on enough duration based on evidence of research. Findings of this study can guide nurses in improving care of dying patients. In addition, this study guides Jordanian managers to plan educational programs with adequate time and standardized content to improve nurses' attitudes towards caring for dying patients.

Implications and recommendations

This study provides significant data regarding the mean scores of attitude towards caring for dying patients of nurses working in a cancer center and the effect of education on attitudes towards caring for dying patients, which can be considered as the starting step in assessing Jordanian nurses' attitudes towards caring for dying patients and implementing educational programs. Moreover, the result of this study, in addition to results of previous studies on death and dying, can be considered in academic institutions, clinical education, practice, research and nursing administration to improve nurses' attitudes towards caring for dying patients and prepare them adequately for death experiences, which are part of their daily work in cancer centers.

The findings of this study will enhance and improve the overall nursing care towards dying patients and their families. Nurses should be given a chance to have EOL education to be able to interact with dying patients and reach the expected level of care for patients and their families. Moreover, this study showed that EOL educational programs and certain

nurses' demographics had a positive effect on their attitudes towards caring for dying patients.

Nursing practice. The result of this study can be applied to nurses caring for cancer patients with terminal stage. The attitudes scale can be obtained from nurses prior to working in wards or units that provide care for dying patients. The nurses with high scores can be assigned to the area with large number of dying patients (e.g. palliative and hospice care wards, home care, etc.). In addition, cancer institution can provide nurses with continuous EOL education. On the other hand, nurses who have low scores on FATCOD scale can be exposed to more extensive and detailed EOL education that can improve their attitudes towards caring for dying patients.

Nursing Administration. The utilization of results of this study and other previous studies can help nurses' managers in making policies for nurses caring for dying patients. The policy based on this study results includes taking basic EOL education for two days. This can enhance positive attitudes towards caring for dying patients, in addition to planning standardized educational programs for nurses dealing with terminally ill patients. Also, this study give a clear guidance for managers to provide adequate support and encouragement for their staff through support and discussion groups and counseling sessions for individuals (Wu & Volker, 2009). So that, knowing nurses' attitudes towards caring for dying patients will assist administrative nurses in assigning the appropriate nurses for caring for dying patients (Ellershaw & Ward, 2003).

Nursing Education. The result of this study and other studies that may be conducted in Arab countries in general and Jordan in particular can guide nursing faculties in EOL educational issues. Nursing faculties can give more attention to EOL care and integrate

related topics into nursing curricula and allocate adequate clinical hours for nurses in dealing with dying patients. Faculties need to have appropriate methods of EOL teaching to make nurses involved emotionally in patient interaction and care. The nurses need to be supported during this period till they reach an acceptable level of coping with death and dying. Providing students with more hours of practice will help them feel more comfort when involved in the care of dying patients and discussions about death and dying. The use of standardized modules such as the ELNEC modules will ensure that all students have the knowledge required for providing quality of care to the dying patients.

Nursing Research. This study has implications for nursing researchers. It provides evidence-based data about relationship between some nurses' characteristics and their attitudes towards caring for dying patients and effect of education on those attitudes. It also open the way for further studies on educational programs regarding duration, content, and effects. This study with other studies that may be conducted with Arabic nurses will give adequate data for understanding Arab culture regarding attitudes towards caring for dying patients.

This quantitative study provides numerical data that are useful in assessing association of nurses' characteristics, education with attitudes towards caring for dying patients. But for deep understanding of nurses' attitudes towards caring for dying patients, there is a need to conduct qualitative research to obtain nurses' feeling and emotions they experience when dealing with the dying, which can be rich material for future educational programs. Also, there is a need to conduct research studies to assess the effect of improving nurses' attitudes on patients' satisfaction and quality of care. Furthermore, there is a need for studying the adequacy of the ELNEC program for EOL education and improving attitudes towards caring for dying patients.

Finally, the study came up with many unresolved questions that can be studied and combined with the results of other studies. Future studies should include nurses in all health sectors that have terminally ill patients and examine effect of other variables on nurse's attitudes towards caring for dying patients; an example of those variables includes job satisfaction, method of education, meaning of death to nurses, and administrative support. Other variable such as religious status of nurses could have effect on their attitudes towards caring for dying patients. This variable was not a purpose of this study. But it is recommended to be included in future studies that might be conducted on Arab nurses.

The result of this study provides us with information of the categories of nurses and their attitudes towards caring for dying patients. It is recommended to replicate such study on graduated nurses who have little oncology experience. In addition, it is worthwhile to study the effect of the EOL educational program with different duration on nurses' attitudes towards caring for dying patients. Finally, it is recommended to get feedback from the participants after conducting the educational program. This will help in making the modifications that will improve the educational program in the future.

Strength and limitation

This study had several limitations. First, all data were collected using self-report questionnaires. Using other methods of data collection such as interview could yield in depth data about nurses' attitudes towards caring for dying patients. Nevertheless, the strength of the survey was the response rate of 83.6 % which is comparatively good. Second, this study was carried out in a single specialized cancer center. Thus, the findings may not reflect the total population of nurses in Jordan regarding relationships of nurses' demographics with their attitudes. Moreover, the results do not reflect attitudes of nurses working in general hospitals. On the other hand, nurses working in this cancer center graduated from the

different universities, so that results of this study might reflect gaps found in curricula of most Jordanian universities regarding inadequacy of end-of-life education. Moreover, this study is one of the first studies conducted in Jordan on nurses' attitudes towards caring for dying patients. Findings, implications, and recommendation of this study will help researchers in future studies on EOL care.

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Appendix 1

Educational Program

Goal:

This program provides nurses with the knowledge and skills to effectively meet the needs of cancer patients at end-of-life stage through comprehensive educational activities about EOL care. Also, the program will help nurses to improve their attitudes toward caring for dying patients.

Objectives

At the end of this course each participant is expected to:

- Identify the main goals of palliative care.
- Discuss the current status of end-of-life care in Jordan
- Improve quality of life for patients with cancer.
- Explain the principles and ethical challenges of end-of-life care and hospice.
- Discuss the needs of dying children and their parents.
- List the basic principles of pain assessment and management
- Discuss assessment and management of physical symptoms at EOL
- Discuss assessment and management of psychosocial and emotional symptoms at EOL
- List pharmacologic and non-pharmacologic physical-comfort measures for care of the dying client.
- Provide support to family of dying patient.
- Assist the patient, family and staff with difficult medical decision-making.
- Implement a holistic nursing care for end-of-life patients with cancer.
- Discuss the essential elements of effective communication with client and family.
- Describe care of the client during the last hours.

Introduction to palliative and hospice care

- Definition of palliative care
- Differences between palliative and hospice care
- Goals of care at the end of life
- Prognosis of terminal illness
- Where people die (home vs. hospital)

Whole patient assessment

- Communicating and negotiating goals of care to patients and intimates

Pain management

- Definition and types of pain
- Barriers to adequate pain management
- Pain characteristics
- Pain assessment: history and physical exam
- Pharmacologic management of pain
- Non-pharmacologic management of pain
- Addiction, habituation and dependence

Symptom management

Physical symptoms:

- Shortness of breath
- Loss of appetite
- Sleeplessness
- Depression
- Anxiety

Psychological and spiritual care

Ethical and legal issues

- Ethical decision making (conflict resolution)
- Truth-telling
- Principle of double effect
- Advance Directives
- Do-Not-Attempt-Resuscitation Orders (DNAR Orders)
- Withholding/withdrawing life-sustaining treatments, including artificial nutrition and hydration (ANH)

Care of caregiver

- Psychosocial support needs at the EOL
- Social-work interventions
- Community resources and social support

Effective communication with client and family

- Communication skills at the EOL
- Breaking bad news

Cultural considerations in end-of-life care

- Arabic and Islamic cultural perspectives in EOL care
- Role of the family
- Preparation for death
- Cultural responses to grief and mourning

Loss, grief and bereavement

- Normal grief reaction
- Differentiate grief reaction from depression

Preparation and care for the time of death

- Care during the last hours
- Signs of imminent death

Teaching methods:

Group discussion, reflection, videos and clinical scenarios.

Appendix 2

DEMOGRAPHIC DATA SHEET

Completion and return of this questionnaire will be construed as your consent to be a research subject in this study. Your anonymity is guaranteed.

Please check the appropriate spaces:

1. Age

____ 21-25 years
____ 26-30 years
____ 31-35 years
____ 36-40 years
____ 41-45 years
____ 46-60 years

2. Gender

____ Male
____ Female

3. Highest degree held:

____ Associate Degree
____ Bachelors Degree
____ Masters Degree
____ PhD

4. Experience years in general nursing

____ New graduate
____ 3 months – 1 year
____ 1-5 years
____ 6-10
____ More than 10 years

5. Experience years in oncology nursing

____ Less than one year
____ 1-5 years
____ 6-10 years
____ More than 10 years

6. Do you take a course in death and dying previously?

____ Yes
____ No

7. Do you have recent experience in dealing with terminally ill patient (life expectancy for patient 6 months or less)?

___ Yes
___ No

8. Do you have death experience at the past time?
____ Yes
____ No

9. Do you have death experience at the present time?
____ Yes
____ No

10. Ward

____ Inpatient
____ Outpatient

Appendix 3

Frommelt Attitudes Toward Care of the Dying Scale, Form B

In these items the purpose is to learn how caregivers feel about certain situations in which they are involved with patients. All statements concern the giving of care to the dying person and/or, his/her family. Where there is reference to a dying patient, assume it refers to a person who is considered to be terminally ill and to have six months or less to live.

Please insert a tick mark in the appropriate slot which corresponds to your own personal feelings about the attitude or situation presented. Please respond to all 30 statements on the scale. The meaning of the letters is:

SD = Strongly Disagree
D = Disagree
U = Uncertain
A = Agree
SA = Strongly Agree

Items	SD	D	U	A	SA
1. Giving care to the dying person is a worthwhile experience.					
2. Death is not the worst thing that can happen to a person.					
3. I would be uncomfortable talking about impending death with the dying person.					
4. Caring for the patient's family should continue throughout the period of grief and bereavement.					
5. I would not want to care for a dying person.					
6. The non-family care-givers should not be the one to talk about death with the dying person.					
7. The length of time required to give care to a dying person would frustrate me.					
8. I would be upset when the dying person I was caring for, gave up hope of getting better.					
9. It is difficult to form a close relationship with the dying person.					
10. There are times when death is welcomed by the dying person					
11. When a patient asks, "Am I dying?", I think it is best to change the subject to something cheerful.					
12. The family should be involved in the physical care of the dying person if they want to.					
13. I would hope the person I'm caring for dies when I am not present.					
14. I am afraid to become friends with a dying person.					
15. I would feel like running away when the person actually died.					

Items	SD	D	U	A	SA
16. Families need emotional support to accept the behavior changes of the dying person.					
17. As a patient nears death, the non-family care-giver should withdraw from his/her involvement with the patient.					
18. Families should be concerned about helping their dying member make the best of his/her remaining life.					
19. The dying person should not be allowed to make decisions about his/her physical care.					
20. Families should maintain as normal an environment as possible for their dying member.					
21. It is beneficial for the dying person to verbalize his/her feelings.					
22. Care should extend to the family of the dying person.					
23. Care-givers should permit dying persons to have flexible visiting schedules.					
24. The dying person and his/her family should be the in-charge decision makers.					
25. Addiction to pain relieving medication should not be a concern when dealing with a dying person.					
26. I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying.					
27. Dying persons should be given honest answers about their condition.					
28. Educating families about death and dying is not a non-family care-givers responsibility.					
29. Family members who stay close to a dying person often interfere with the professionals' job with the patient.					
30. It is possible for non-family care-givers to help patients prepare for death.					

**Non-family caregiver* here means the health-care providers.

Appendix 4

Permission for using research tool (The FATCOD)

RE: Phd student request your permission

Sunday, February 15, 2009 2:01 PM

From:

"Kay Frommelt" <Kay.Frommelt@clarke.edu>

To:

"khaledkhader@yahoo.com" <khaledkhader@yahoo.com>

Message contains attachments

FATCOD,_form_B.doc (43KB)

Form B is attached. I hope this is what you need.

Kay
Katherine H Murray Frommelt, PhD, RN, FT

From: khaled khader [http://us.mc507.mail.yahoo.com/mc/compose?to=khaledkhader@yahoo.com]
Sent: Saturday, February 14, 2009 1:41 AM
To: Kay Frommelt
Subject: RE: Phd student request your permission

Dear Dr. Formmelt
Thanks a lot for your permission. I want to use Form B.
Would you please send me a software of Form B.
Again, Thank you very much for help.

Best Regards
Khaled Khader
PhD Student

--- On Wed, 2/11/09, Kay Frommelt
<http://us.mc507.mail.yahoo.com/mc/compose?to=Kay.Frommelt@clarke.edu> wrote:

\> From: Kay Frommelt
<http://us.mc507.mail.yahoo.com/mc/compose?to=Kay.Frommelt@clarke.edu>
\> Subject: RE: Phd student request your permission
\> To: "http://us.mc507.mail.yahoo.com/mc/compose?to=khaledkhader@yahoo.com"
<http://us.mc507.mail.yahoo.com/mc/compose?to=khaledkhader@yahoo.com>
\> Date: Wednesday, February 11, 2009, 9:05 AM
\> Dear Kahled,
\>
\> Which form of the tool do you want to use? Form A was
\> originally designed for use with nurses only. I later made
\> a form B that could be used with persons from any
\> discipline, including nursing. Form B also has more
\> demographics. You have my permission to use whichever tool
\> you choose.
\>
\> Good luck with your research.
\>
\>

> Katherine H Murray Frommelt, PhD, RN, FT
> ____
> From: khaled khader [http://us.mc507.mail.yahoo.com/mc/compose?to=khaledkhader@yahoo.com]
> Sent: Tuesday, February 10, 2009 3:41 AM
> To: Kay Frommelt
> Subject: Phd student request your permission
>
> Dear Dr. Formmelt
> I am a doctoral student studying in Jordan University, in
> Jordan. I am also working in Palliative and Hospice Care in
> King Hussein Cancer Center. My Proposal will be
> "Nurses' attitude toward death and caring for dying
> patients". Please, I need your help and permission in
> using your instruments in my dissertation.
>
> Thanks a lot
> Best Regards
> Khaled Khader
> PhD Student

Appendix 5
IRB Approval Letter from KHCC

King Hussein Cancer Center | مركز الحسين للسرطان

Institutional Review Board | مجلس تقييم الأبحاث

Date: 15/July/2009

Dear Mr. Khaled Khader,

In reference to the proposal entitled: "The effect of educational programs on Jordanian Nurses' attitudes toward caring for dying patients at a Cancer Center in Amman" (Proposal #: 09 KHCC 44).

You are kindly informed that the IRB has reviewed and approved your submitted documents which include the followings:

1. IRB Proposal Submission FORM B
2. Arabic Informed Consent Form
3. English Questionnaire
4. English Questionnaire for Pilot Study
5. Arabic Questionnaire
6. Protocol Summary
7. Palliative and End of Life Care Educational Program Document

Kindly Note, that this proposal was exempted from full IRB review.

Kindly note that if the study will extend beyond one year you have to submit a renewal form and an interim update on the study. At the end of the study, you are requested to submit end of study report to IRB.

Please inform the IRB office of any publications/ abstracts that may result from this research.

On behalf of all members of KHCC IRB, I would like to wish you a very successful study.

15 JUL 2009

IRB Approved

Dr. Maysa Al-Hussaini
Chairman, Institutional Review Board,
King Hussein Cancer Center

Date: 15/July/2009

KHCC-IRB is compliant with GCP Guidelines

Appendix 6

Informed Consent (in Arabic)

King Hussein Cancer Center	مركز الحسين للسرطان
Institutional Review Board	مجلس تقييم الأبحاث

اقرار بالموافقة على بحث بدون فائدة مباشرة للمشاركين

Informed Consent for Research with Survey or Questionnaire

ملاحظة للباحث: يرجى الأخذ بعين الاعتبار أن بعض المصطلحات والنقاط الواردة في هذا النموذج ممكن ألا تتناسب وطبيعة الدراسة التي ستقوم بها. يرجى الاتصال بمجلس تقييم الأبحاث للمشورة بكيفية تحوير (تعديل) هذا النموذج ليتناسب أكثر وطبيعة دراستك

عنوان البحث : تأثير البرامج التعليمية على اتجاهات الممرضين الأردنيين نحو العناية بالمرضى المحتضرين في مركز للسرطان في عمان

15 JUL 2009

الجزء الأول – معلومات للمشارك في البحث:

أ. الغرض من البحث:

وصف اتجاهات الممرضين نحو العناية بالمرضى المحتضرين و دراسة علاقة ذلك مع صفاتهم الشخصية ودراسة تأثير البرامج التعليمية على تحسين اتجاهات الممرضين نحو العناية بالمريض المحتضر.

ب. وصف البحث: البحث تجريبي يقوم بقياس اتجاهات الممرضين نحو الموت قبل الدراسة ثم تقديم برنامج تعليمي للمجوعة التجريبية مدته يومين ثم قياس التغير في الاتجاهات مباشرة بعد البرنامج التعليمي للمجموعتين الضابطة والتجريبية ثم قياس الإتجاهات للمجوعة التجريبية بعد شهر من تقديم البرنامج التعليمي للتأكد من ثبات التغير في الاتجاهات. البحث يعتمد على مقياس معياري للاتجاهات نحو العناية بالمرضى المحتضرين حيث تم قياس مصداقية الاداة وثباتها في العديد من الدراسات السابقة. العينة للبحث ستكون 128 ممرض وممرضة ولضمان الحصول على هذا العدد كاملا في حالة انسحاب بعض الممرضين من الدراسة سيتم اخذ عينة مكونة من 150 ممرض وممرضة يتم اختيارهم من بين 488 ممرض وممرضة يعملون في مركز الحسين للسرطان.

ج. المدة المتوقعة للدراسة:

المده اللازمه لانهاء الدراسه كاملة : 3 شهور

مدة مشاركة المريض في هذه الدراسة : للمجموعة الضابطة (ساعتين لملأ الاستمارات)، اما المجموعة التجريبية (يومين للبرنامج التعليمي ثلاث ساعات لملأ الاستمارات).

د. عدد المشاركين بالدراسة 150

ه. عدد المراكز المشاركة 1

و. المخاطر والانزعاجات المحتملة:

بعض الوقت اللازم لملأ الاستمارات

ز. الفوائد المرجوة :

المشاركة في برامج تعليمية للعناية بالمريض المحتضر تساعد الممرض في تقديم الرعاية التمريضية لمرضى السرطان في المراحل المتقدمة

ح. البدائل عن المشاركة (إن وجدت):

لا يوجد

ط. تكاليف المشاركة:

لا شيء

ي. المكافآت المالية:

لا شيء

ك. التعويضات / المعالجات:

لا شيء

ل. المشاركة التطوعية:

المشاركة في هذه الدراسة طوعيه وإذا قررت عدم المشاركة فانك لن تتعرض لأي مضايقات أو لفقدان حقك المشروع في المعالجة.

م. السرية:

كمشارك في هذه الدراسة ستكون هويتك و المعلومات الشخصية المجموعة في الدراسة سرية في جميع المنشورات المتعلقة بنتائج الدراسة في الحدود التي يسمح بها القانون.

ن.: إنهاء المشاركة:

أن قرارك بالانسحاب من الدراسة لن يؤثر على تلقيك لخدمة علاجية بديلة متوفرة في مركز الحسين للسرطان.

• الأشخاص الذين يمكن الاتصال بهم:

• في حالة وجود أي استفسار عن الدراسة أو أسئلة محددة تتعلق بهذا البحث نرجو الاتصال بالباحث خالد عبد الله ذيب خضر على هاتف رقم (المستشفى) 5300460 تحويلة رقم 1173 أو 1807 أو جهازخلوي رقم 0777425519

• وفي حالة حدوث أي مضاعفات تتعلق بالدراسة، نرجو الاتصال بالباحث خالد عبد الله ذيب خضر على هاتف رقم (المستشفى) 5300460 تحويلة رقم 1173 أو 1807 أو جهازخلوي رقم 0777425519

• في حالة وجود أي أسئلة عامة أو أسئلة تتعلق بحقوق المشارك عليك الاتصال باللجنة المؤسسية لتقييم الأبحاث على هاتف رقم 5300460 فرعي 1669.

الجزء الثاني: تفويض من المشارك بالدراسة التي لا يتوقع منها فائدة مباشرة للمشارك:

اسم المشارك: -- 15 JUL 2009

1. بهذا أتطوع للمشاركة في هذه الدراسه تحت إشراف الباحث خالد عبد الله ذيب خضر. والمتضمن لما يلي: تأثير البرامج التعليمية على اتجاهات الممرضين الأردنيين نحو العناية بالمرضى المحتضرين في مركز للسرطان في عمان

2. أقر بأنني قد قرأت – أو شرح لي بلغة مفهومة لدي – هذه المعلومات المتعلقة بمشاركتي في هذا البحث وأن الباحث خالد عبد الله ذيب خضر قد أوضح لي طبيعة وأهداف هذه الدراسة والانزعاجات. كما أقر بأنه قد أتيحت لي الفرصة لتوجيه جميع الأسئلة المتعلقة بموضوع الدراسة وتلقيت الإجابات الوافيه.

3. أفهم بأن هذه الدراسة ليس لها أي فائدة علاجية مباشرة لي ومع ذلك أتطوع بالمشاركة.

4. وأفهم بأن لي مطلق الحرية بسحب هذا التفويض وإنهاء مشاركتي بهذه الدراسة في أي وقت أشاء. كما أفهم بأن انسحابي من هذه الدراسة لن يؤثر على حقي في تلقي العناية الطبية اللازمة والتي تمنح للمشاركين بالدراسة أو استحقها في الأحوال العادية.

5. أوافق على أن يكون هذا الإقرار كمشاركة طوعيه في هذا البحث الطبي

6. كما أؤكد بأنني قد قرأت (أو قرأ لي) هذا التفويض وأن كل المعلومات اللازمة قد تمت تعبئتها بدقة قبل توقيعي عليه.

7. أقر بأني قد استلمت نسخه موقعه من هذا الأقرار.

8. قد يقوم الباحث الرئيس بطرح بعض الأسئله عليك بعد الانتهاء من شرح الأقرار.

توقيع المريض أو ولي الأمر: ______________ التاريخ : ______________

الاسم ______________ صلة القرابة : ______________

توقيع الشاهد: ______________ الاسم: ______________

الرقم الوطني : ______________ التاريخ : ______________

أقر بأنني قد شرحت للمتطوع/ لقريبه/ أو ولي أمره المذكور أعلاه بصورة كاملة طبيعة وأهداف مشروع البحث المذكور والمتضمن عدم وجود فائدة مباشرة على المشارك. كما إنه من المفهوم لدي بأنه قد فهم طبيعة الدراسة والغرض منها وذلك قبل توقيعه على الموافقة بالمشاركة ، ولقد قمت بتوضيح استعدادي للإجابة على أي أسئلة متصلة بهذه الدراسة ، وقمت فعلاً بالإجابة الوافيه على جميع أسئلته المتعلقة بالدراسة.

توقيع الباحث الرئيسي: ______________ الاسم (طباعة): خالد عبد الله ذيب خضر

التاريخ: 8/7/2009

تمت مراجعة هذا النموذج والموافقة عليه من قبل اللجنة المؤسسية لتقييم الأبحاث في مركز الحسين للسرطان

Appendix 7

Cover Letter

Date

Dear Nurse:

You have been selected to participate in a study of Jordanian Nurses' attitudes towards the care of dying patients in cancer institutions. The purposes of this study are to describe nurses' attitude toward caring for dying patients, and to examine the effect of an educational program and nurses' characteristics on their attitudes toward the care of dying patients. Your participation will help us in understanding nurses' attitudes towards the care of dying patients and the relationship of their characteristics to their attitudes towards the care of dying patients.

Your confidentiality will be assured by assigning you a number. All of your responses will be associated with this number. No one except the researcher will be aware of your identity. All responses will be kept in a secure place. If data from this study are presented or published, your identity will not be divulged in any way.

You need to fill out two questionnaires; one for your demographics and the other for your attitude towards the care of dying patients. The two questionnaires take about 30 to 45 minutes to complete. There is no risk of participating in the study, except the time it takes to fill out the questionnaires. Please answer all the questions. If there are questions you prefer not to answer, please state 'prefer not to answer' on the form. The decision to complete and return this questionnaire will be interpreted as an agreement to participate in the research. If you require further assistance or information about the questionnaires or the research, please contact the researcher or his supervisor using the details below.

We truly appreciate your help! Thank you!

Sincerely,

Khaled Khader, RN, PhD (c)

Tel: 0777425519

Khaledkhader@yahoo.com

Dr. Samiha Jarah

Tel: 0795346244,

Nur_dean@asu.edu.jo

Faculty of Nursing, University of Jordan

Amman, 11942 Jordan.

تأثير البرامج التعليمية على اتجاهات الممرضين الأردنيين نحو العناية بالمرضى المحتضرين

اعداد
خالد عبد الله خضر

المشرف
الدكتورة سميحة جراح

المشرف المشارك
الدكتور جعفر الأسعد

ملخص

المقدمة: يعتبر مرض السرطان من ثاني الأسباب المؤدية للوفاة في الأردن، حيث يتم تشخيص معظم المرضى الأردنيين في مراحل متأخرة من المرض (وزارة الصحة, 2007)؛ وبالتالي فإن الممرضين سيقدمون العناية التمريضية لعدد كبير من المرضى المحتضرين وهو ما يثير لديهم عدد من المشاعر والاتجاهات غير المرغوب بها. وهذه الاتجاهات ايجابية كانت ام سلبية ستنعكس على نوعية العناية التمريضية المقدمة للمريض. هناك الكثير من العوامل التي تؤثر على اتجاهاتهم، مثل صفاتهم الشخصية (مثل العمرو الجنس والمستوى التعليمي) و البرامج التعليمية التي يتلقونها ذات العلاقة بالاحتضار.
أهمية الدراسة: تظهر أهمية الدراسة لكونها الدراسة الأولى في الأردن ولا يوجد سوى القليل من الدراسات العربية في هذا الموضوع؛ بالإضافة إلى أن الموضوع يعطي معلومات عن اتجاهات الممرضين الأردنيين نحو العناية بالمرضى المحتضرين ومدى تأثير البرامج التعليمية على اتجاهاتهم مما يساهم في تحسين نوعية الرعاية المقدمة لهم. كذلك تساعد هذه الدراسة معلمي التمريض والإداريين في تخطيط وتطبيق أفضل البرامج للعناية بالمرضى المحتضرين.
هدف الدراسة: تهدف هذه الدراسة إلى تقييم اتجاهات الممرضين الأردنيين نحو العناية بالمرضى المحتضرين المشرفين على الموت وتقييم تأثير البرامج التعليمية وتأثير صفاتهم الشخصية على اتجاهاتهم نحو العناية بالمرضى المحتضرين.
منهج الدراسة: استخدم المنهج التجريبي وذلك بعمل اختبار قبلي على 145 ممرض وممرضة تم اختيارهم عشوائيا من مركز للسرطان وتطبيق الإجراء التعليمي عليهم وتم عقد اختبار بعدي مباشرة بعد الإجراء التعليمي باستخدام مقياس(FACOD).ثم فحص تأثير هذا البرنامج وتأثير الصفات الخاصة بالممرضين والممرضات(مثل العمرو الجنس والمستوى التعليمي و القسم وتلقي التعليم عن الموت والخبرة بالموت والخبرة التمريضية وتقديم العناية للمرضى المحتضرين وحضور البرنامج التعليمي الخاص بالمرضى المحتضرين) على اتجاهاتهم بواسطة استخدام فحص T-test وفحص ANOVA وفحص Repeated Measures.
نتائج الدراسة: أظهرت الدراسة أن البرامج التعليمية أثرت بشكل ايجابي على اتجاهات الممرضين نحو العناية بالمرضى المشرفين على الموت، وقد ارتفع معدل الاتجاهات عند الفئة التجريبية من 117.1 الى

125.6وهو ارتفاع ذو دلالة احصائية بينما ارتفع معدل الاتجاهات للفئة الضابطة من 115.4 الى 119.6 وهو ارتفاع ليس له دلالة احصائية. مما يشير الى ضرورة عقد مثل هذه البرامج التعليمية للممرضين الذين يقدمون العناية التمريضية للمرضى المحتضرين وذلك للمحافظة على مستوى اتجاهاتهم مرتفعة. كذلك أظهرت الدراسة أن العمروالقسم الذي يعمل فيه الممرض والخبرة الحالية بالموت و الخبرة في التمريض بشكل عام والخبرة في أقسام مرض السرطان وتلقي البرامج التعليمية كانوا العوامل الوحيدة التي لها علاقة ذات دلالة إحصائية مع اتجاهاتهم نحو العناية بالمرضى المحتضرين.

الاستنتاج: تشير نتائج الدراسة الى الحاجة لعقد مثل هذه البرامج لجميع الممرضين الذين يقدمون العناية التمريضية للمرضى المحتضرين لتحسين اتجاهاتهم نحو العناية بالمرضى المحتضرين. ان فهم تأثير البرامج التعليمية والعوامل الاخرى التي لها علاقة مع اتجاهات الممرضين نحو العناية بالمرضى المحتضرين تساعد الممرضين على تحسين العناية التمريضية لهؤلاء المرضى اعتماداً على نتائج الأبحاث، كذلك تساعد الممرضين على تخطيط البرامج التعليمية من حيث كفاية المدة والمحتوى لتحسين اتجاهاتهم نحو العناية بالمرضى المحتضرين.